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# NATIONAL CITY GENERAL PLAN

## NATIONAL CITY, CALIFORNIA

[Nat'l City. City council]
city planning Nat'l City

DUNCAN & JONES
Urban & Environmental Planning Consultants

GENERAL PLAN CHANGES

ENTERED

| Amendment No. | Date Approved | City Council Resolution No. |
|---|---|---|
| GP-1-75 | 5/6/75 | 11,770 |
| GP-2-75 | 8/19/75 | 11,838 |
| GP-1-76 | 3/23/76 | 12,000 |
| GP-2-76 | 8/24/76 | 12,118 |
| GP-3-76 | 1/11/77 | 12,227 |
| GP-1-77 | 4/17/77 | 12,326 |
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# NATIONAL CITY GENERAL PLAN

## NATIONAL CITY, CALIFORNIA

DUNCAN & JONES
*Urban & Environmental Planning Consultants*

**SEPTEMBER, 1974**

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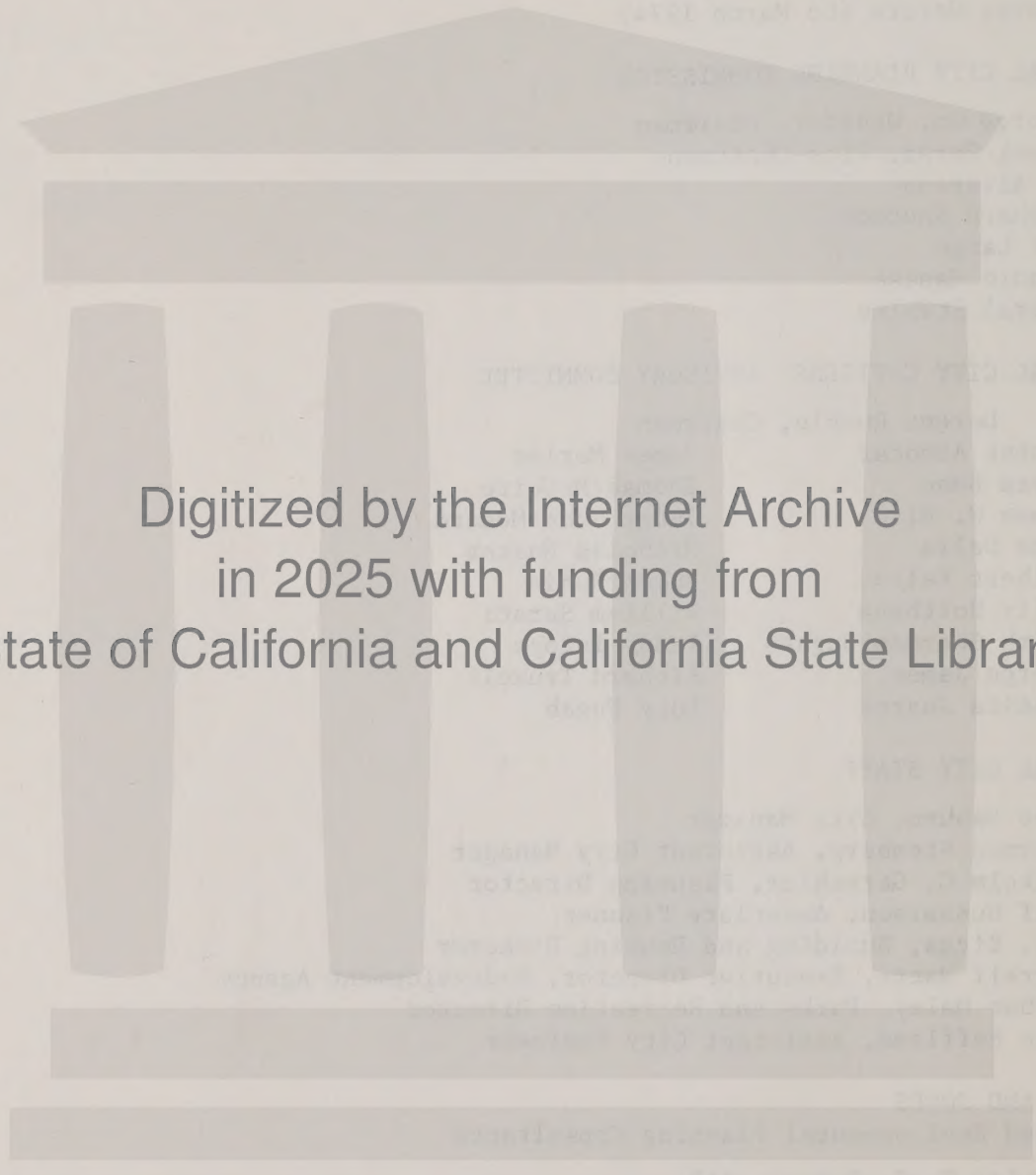

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The General Plan report contains only a small portion of the data, the research analyses and studies prepared by the consultant, the City Planning Department, and other City departments. The main body of background information can be found in the following documents:

1. Preliminary Issues and Objectives Report, prepared by Duncan & Jones, September, 1973.

2. Preliminary Report on Existing Conditions, Trends and Issues in National City, prepared by Duncan & Jones, November, 1973.

3. Preliminary Sketch Plans, report and maps, prepared by Duncan and Jones, January, 1974.

4. Technical Report, prepared by Duncan & Jones, August, 1973.

5. Implementation Program Report, prepared by Duncan & Jones, September, 1973.

A substantial amount of information has been gathered and prepared in a graphic form during the course of the program to date. A list of these maps and materials is included in Appendix A.

## THE NATURE OF THE NATIONAL CITY GENERAL PLAN

The General Plan for National City is a long-term plan, which defines the conditions of development which should be achieved in the next twenty-year period. The Implementation Program Report outlines the first steps in the process of achieving the long-term plan and indicates some of the actions and staging necessary to achieve this goal. It is now generally recognized that short-term decisions can either facilitate or preclude long-term uses and benefits, and that such decisions must be examined in the light of long-term goals. The Implementation Program will help to provide a basis for day-to-day decision making.

The Implementation Program is presented in a separate report in a form which will facilitate yearly review and alteration if required. The Implementation

Program Report includes a suggested sequence of public actions, a Capital Improvements Program, a Decision Making System/Impact Assessment Process, an Open Space Action Program, and discussions of the need for zoning to be consistent with the General Plan and possible federal funding for community development.

The General Plan Map (enclosed in the back cover of this report) designates land uses, residential densities, and major components of the circulation system for the urban incorporated portions of the planning area. The map reflects the goals and policies toward which National City should move over the next twenty years. A second map covering the outlying portions of the planning area is presented on the reverse side of the General Plan Map.

A unique feature of the National City General Plan Implementation Program is the Decision Making/Impact Assessment Process, which can be used by City officials and departments in evaluating the social, economic, and environmental impact of proposed public and private projects. This is a tool which will enable staff to judge a proposed project in terms of its positive and negative effects upon the physical, economic and social structure of the City and the extent to which it serves adopted City policies, including those in the General Plan. Of course, final approval of major projects is the province of the City's elected officials, and the Impact Assessment Process will provide the City Council and the Planning Commission with an objective basis on which to judge a proposal and base a decision.

## THE ROLE OF THE NATIONAL CITY GENERAL PLAN

The General Plan is a policy document, officially adopted by the City Council. It states the goals and objectives of the city and outlines the means to be pursued for their achievement. The General Plan represents the adopted public policy framework for guiding the planning area's growth and development and for guiding the fiscal, economic, environmental, and housing programs of the City. Under the terms of the California Government Code Section 65300 et seq., the General Plan is to be used as the basis for all development decisions in the city, and the city's Zoning Ordinance must be consistent with the General Plan. Consistency with the General Plan is one of the criteria adopted by

state agencies in guidelines for the evaluation of environmental impact. The need both for consistency of long-range goals and policies and for responsiveness to changing conditions is recognized by the state law provision for amendment of the General Plan, which now permits General Plans to be amended only three times a year. While the City Council may not wish to amend the General Plan as often as permitted, it is essential that the plan be reviewed periodically and changed if conditions warrant it. The Planning Commission should review the General Plan on an annual basis in order to establish where minor revision may be required. Also, the Planning Director shall submit to the City Council a semi-annual General Plan status progress report. The short-range Implementation Program should be reviewed and updated each year to reflect the programs and priorities to be undertaken in the following five-year period. Once each five to seven years, the entire Plan should be completely re-evaluated, and the schedule and strategy outlined for its implementation reviewed and, if necessary, revised. After public hearings, the General Plan should be revised to reflect necessary changes in City policy. It is important to recognize that the adoption of the General Plan is not the end of the planning process, but only the beginning. Plans are not self-fulfilling prophecies of the future. Continued study, effort, support and the commitment of public and private funds will be required to implement the provisions and policies of the General Plan.

It should be recognized that no completely effective means of illustrating the full intent and direction of a plan such as this one has yet been devised to conform to the constraints of cost, time, need for flexibility and capability for revision, and the all-important requirement that it clearly communicate its content to the general public. It is not possible, for instance, to reflect the quality and character desired in a particular land use category in a specific location except in very general terms. It is also undesirable to attempt to illustrate every small existing exception from the land use category proposed for a sub-area of the City, even though it may be recognized as an acceptable and "permanent" use.

The General Plan map indicates the predominant use of land recommended in each area, and does not preclude minor deviations from the overall pattern. It does not reflect every church, institutional, commercial, single- or multi-

family residential use that may exist in areas designated for other uses, nor should it be interpreted as recommending or requiring their removal. Also, the boundaries of areas designated for a particular use or density should not be viewed as final or inflexible. There is no intention to single out one lot as opposed to another next to it for a specific use. Each decision must be made individually, using the policies and recommendations of the General Plan and the Impact Assessment Process as guides.

The National City General Plan also may be expected to have the following uses:

1. Policy Determination

It will enable the City Council to consider and agree upon:

a. A definite set of policies that will be used to govern the future development of the Planning Area, and

b. A general design for the physical development of the Planning Area which reflects those policies.

2. Policy Implementation

The General Plan enables the Planning Commission and City Council to view every specific project (public and private) upon which they must act against an established framework of desirable long-range development policies for the entire community.

3. Communication

It enables the City to convey its long-range physical development policy to the citizens, to the City Manager and staff, and to other agencies of government affected by it (e.g., San Diego County, California State Department of Transportation, City of San Diego, and local school districts). It is intended to be useful to citizens and businessmen in providing a basic public policy framework within which they can make better decisions regarding their own individual development plans.

## CHAPTER II: THE FRAMEWORK OF THE GENERAL PLAN

ASSUMPTIONS

In order to look 20 years into the future, it is necessary to make assumptions about the stability and adequacy of certain physical facilities or land uses, levels of governmental authority and policy, and social organization. Unfortunately, in this age of rapid change, assumptions about anything may be proved false within a short time. This is one reason why the General Plan cannot be a static or unduly rigid document. It must be flexible and able to change if conditions outside the control of National City require it. Keeping this in mind, the assumptions on which the General Plan is based at this time (September 1974) are listed below. They deal with the general context in which National City must operate; with factors of general importance in National City; and with specific uses of land within National City.

General Context

- The political and economic structure of the United States will remain basically the same as it is now.
- Levels of governmental authority will remain essentially the same.
- The present tax structure in which local governments rely heavily on sales tax and property tax derived within their jurisdiction will remain the same.
- No further large scale filling of San Diego Bay will occur.
- Cheap, abundant sources of energy may no longer be assumed to be available.

National City (General)

- Unincorporated enclaves within National City, including Lincoln Acres, will eventually be annexed to the City, as the advantages of annexation

increasingly outweigh the disadvantages to their residents.

- National City's population (exclusive of annexations) will continue to increase at a slow, steady rate.

Housing

- National City will continue to provide substantial quantities of housing for low and moderate income families.
- ~~Housing and industrial uses will not be able to co-exist on the Westside.~~

GP-1-75 Resolution No. 11,770 May 6, 1975 ← DELETED BY

Industry

- The E. J. Christman Industrial Park will be completed.
- Given National City's location within the region, there will be sufficient market demand to occupy all industrial areas National City can or will offer, if such areas are of sufficient size.

Commercial Development

- South Bay Plaza will decline in importance as a major shopping center, and will be incapable of expansion or upgrading or of continuing to serve its present general retail function if the proposed Bonita Center is built.

Transit

- Present levels of service of rail freight will continue or be improved due to National City's location and increasing industrialization.
- Bus service will continue to be the major form of public transit.
- Interstate Routes 5 and 805 will continue to serve their present functions.

Parks and Open Space

- The four city parks will remain and will not be diminished in size.
- Paradise Marina, as a boat harbor, will not be developed without the completion of State Route 54.

## GOALS AND OBJECTIVES

Goals and objectives are statements of intent, representing a consensus about the future directions city policy should take and the future condition of the city. In order to be meaningful, the stated goals and objectives should have a good expectation of achievement, and thus should be set only after a sound appraisal of present and expected future conditions. Once this is done, they must be supported by adequate policies and action programs to accomplish them.

The goals listed below are the consultants' consolidation of the statements of the Citizens' Advisory Committee and other participants in the National City General Plan Revision Program.

### Community Development

- To encourage the development of recognizable neighborhood entities, protected from unnecessary through-traffic, provided with recreational, educational and environmental amenities, which can strengthen social ties and a sense of local identification.
- To "recycle" and re-use for community improvement areas which are presently exerting a blighting effect on National City.
- To establish a balance between environmental protection and the need for healthy economic and physical growth.
- To encourage diversified, labor-intensive industry and commerce to locate in National City in order to provide both a strong city tax base and the possibility of jobs for National City residents.
- To create a clear identity for National City by a) preservation of existing amenities, b) creation of distinctive entrances to the City, and c) development of high standards of urban design.
- To take the initiative in city beautification by inaugurating programs designed to improve landscaping; cleanup services; undergrounding of utilities; and architectural design, and to encourage and help private citizens in beautification efforts.
- To establish standards and procedures which are directed toward making both natural and man-made hazards less of a threat to life and property for the citizens of National City.

Residential Environment

- To foster the availability of a broad range of housing types in order to achieve greater community balance.
- To establish high standards for both single-family and multi-family construction, and to encourage the infilling of vacant lots with single-family homes wherever possible.
- To discourage excessive residential density which strains community resources.

Community Facilities

- To define the functions and character of the several types of local streets and redesign some streets in order to provide the best fit between traffic movement and the nature of abutting land uses.
- To encourage and participate in the provision of facilities for diverse modes of transportation, including bicycle paths, bus transit, and ground rapid transit.
- To establish and maintain a system of well-designed and readily accessible parks, recreation areas, trails and open spaces adequate to meet future needs.
- To preserve as many as possible of the important historic sites remaining in the city for the education and enjoyment of the community.
- To establish a coherent and identifiable "City Center" area by concentrating new commercial, office and housing development around the existing Civic Center and Kimball Park, by redesigning some of the streets in the area, and by redevelopment of blighted areas nearby.

Planning and Participation

- To make the planning process accessible to all residents, and to encourage citizen participation in all phases of planning for National City.
- To provide the means for all residents to realize their potential through training, education, and participation in the community.
- To formulate an aggressive work program to begin immediately to implement the policies and programs in the General Plan.

- To coordinate all city projects and capital expenditures in such a way as to facilitate the implementation of the General Plan.
- To use the Decision Making System/Impact Assessment Procedure and the General Plan as effective operational guides to the future development of National City.
- To expand the membership of the Citizens' Advisory Committee and to involve it in all major planning decisions.

## CHAPTER III: LAND USE

The use of land is one of the most important factors in determining how well or poorly a city functions and how well it serves its citizens. The spatial arrangement of various uses, the uses permitted or prohibited, and the characteristics of each use -- the noise, traffic, and effluents produced, to name a few -- are the primary man-made influences on any city. The control of land use is one of the primary functions of a city government. However, land use is a means to an end -- the goal of a healthy, well-functioning city -- and not an end in itself. Bearing this in mind, the land use element of a general plan must carefully deal with the relationships among all aspects of the plan. Land use is intimately connected with circulation patterns. Accessibility is a chief determinant of land use, and different land uses in turn make varying demands upon the circulation system. Considerations of seismic safety and general public safety, requirements for open space, and conservation of resources, all provide input to decisions regarding the use of particular areas of land.

This General Plan for National City deals with land use within the city limits in greater detail than is usually the case in general plans. This is necessary because of conditions unique to National City, which include the mature character of the housing stock, the lack of large peripheral areas for future expansion, and the compact nature of the development pattern. The age and size of many dwelling units in National City makes large-scale conservation or redevelopment programs necessary in order to provide standard housing. However, the income level of many of National City's residents makes this type of investment or change very difficult. If this is to be made possible without displacing residents, the city will have to take a leading role in initiating upgrading or providing technical or perhaps financial assistance for these

purposes. The small lots, wide streets, and vacant parcels found in many parts of National City present significant land use problems which are not always amenable to blanket solutions. National City has many areas in which the actual use does not conform to the zoning. There are large areas of National City which are undergoing rapid transition from one use to another, resulting in a haphazard land use pattern which does not promote healthy or visually attractive city growth.

National City has many blighted areas of varying size scattered throughout the city which exert a negative effect on the neighborhoods around them. These blighted areas have been allowed to deteriorate for any one of a number of reasons: the structures are obsolete; the owners live elsewhere and do not want to invest money in a rental property; property values are not high enough to make upkeep and renovation attractive; or the owners simply cannot afford to keep the property in good repair. But whatever the reason, the end result is the same: dilapidated structures, untended grounds, and inappropriate uses.

Different sets of problems and opportunities are represented in these areas than in those areas where there is new construction which is inappropriate or not of the best quality. The land area of the older, blighted areas is ripe for reuse -- "recycling" -- aimed at the removal of blight and the replacement of existing uses with those which will more appropriately serve the people of National City. The impetus for this must come from the City itself. Redevelopment, where appropriate, city-initiated neighborhood conservation and rehabilitation programs, and aid to property owners are among the tools the City can use to accomplish the recycling of land. Recommendations for the conservation or recycling of National City's residential areas are discussed in more detail in Chapter VII.

Some of National City's blighted areas have been identified as Redevelopment Survey Areas and are indicated on Figure 1, and include the following areas: National Avenue north of 16th Street, a portion of the Westside south of 16th Street, Paradise Creek Marsh, and Bonita Golf Course. Figure 1 also outlines the City Center Study Area which is to be the focus of a study to determine the feasibility of creating a revitalized, attractive, and intensively used

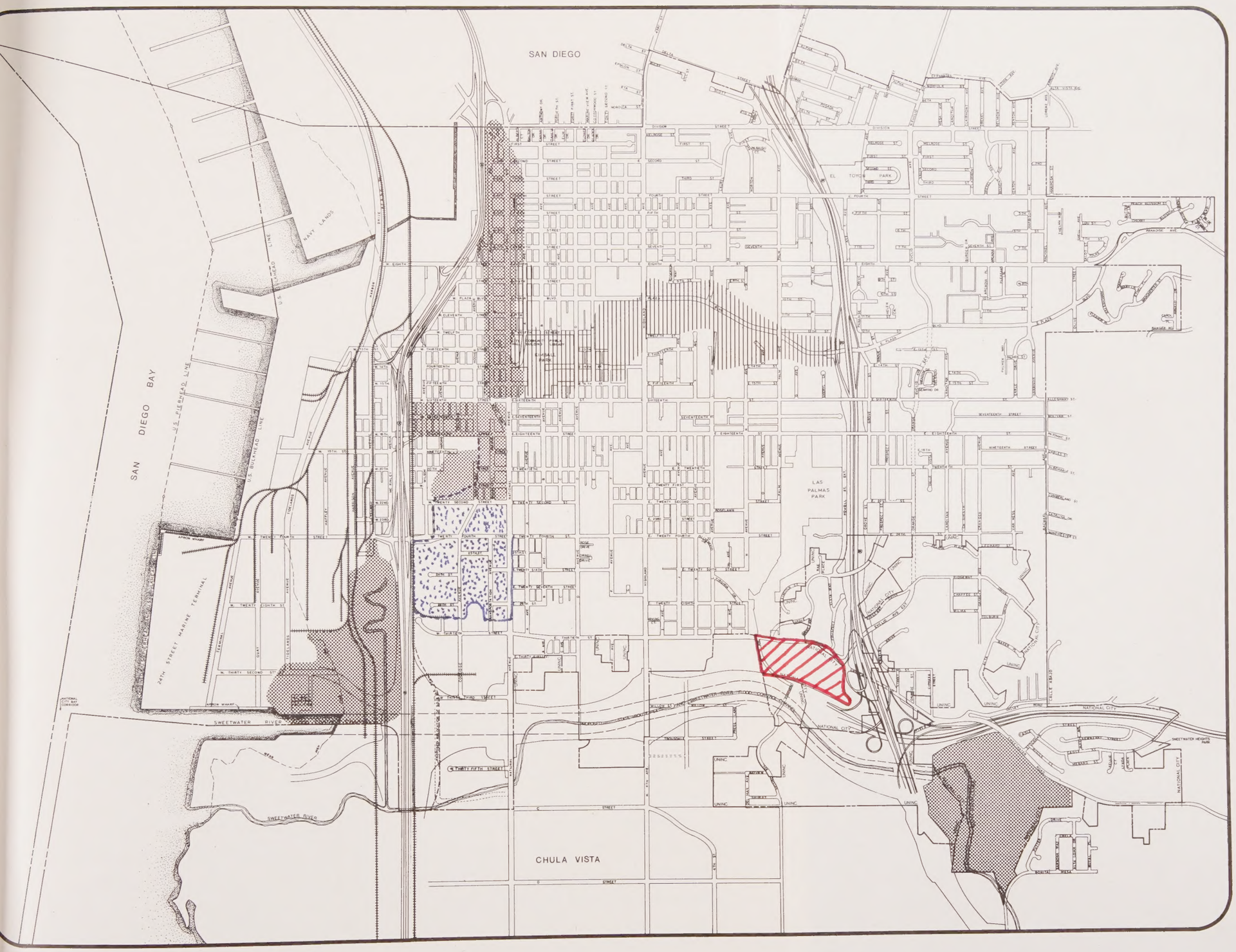


FIGURE 1

## REDEVELOPMENT SURVEY AREAS

CENTER CITY STUDY AREA

REDEVELOPMENT SURVEY AREA

GP-2-75 ADDED TO REDEVELOPMENT SURVEY AREA

GP-1-75 ADDED TO REDEVELOPMENT SURVEY AREA

**NATIONAL CITY, CALIFORNIA**

**GENERAL PLAN REVISION PROGRAM 1973-74**

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central city area in the heart of National City. Chapter V of this General Plan report discusses the National City Center concept.

## CATEGORIES OF LAND USE

The land use categories used in the General Plan are not the same as zoning categories, which contain more specific requirements and standards than does the General Plan. However, the categories used in the General Plan reflect an organization of use types and densities which should be reflected in the National City zoning ordinance. A chart indicating which zoning categories are consistent with the various General Plan land use categories has been prepared and is available in the National City Planning Department.

This chapter discusses the land use categories shown on the General Plan Map; however, some land uses are so important for National City, and involve so many considerations other than strictly land use questions, that they are treated in greater depth in other chapters. Residential use will be discussed in Chapter VII; the concept of a City Center is discussed in Chapter V, and Open Space is discussed in Chapter VIII.

### Residential

This is the basic land use for much of the city. It has been divided into six categories according to a range of density, in order to delineate relatively small areas, and to reflect in a meaningful fashion their existing character and their potential for future change. The densities in each category are maximum ranges for the area indicated. No parcel should be developed to a density greater than the top of the range shown for the area in which it is located. Densities lower than the bottom of the range could be approved. Thus, an area indicated as having a density of 21-30 dwelling units per net acre* could have an actual density of 18 and still be accepteble under the General Plan. However, the highest density existing on individual parcels in National City at this time is in a few cases higher than the maximum allowable (31-40 dwelling units per acre) under this plan. These should be considered nonconforming uses and no further instances of this type should be permitted in the future. The density categories are listed in the table

*Net residential area is defined in terms of the land area used entirely for housing -- no streets are included.

below, together with the structure types which can be expected in each category, and an estimated population for each category. It is intended that areas designated for 1-5 and 6-10 dwelling units per net acre be limited to single family development of one unit per lot; however, where zoning allows, all lots that are not subdividable into standard size lots and all lots where subdivision would result in lots with a depth of more than three times the frontage, which lots contain from 10,000 to 15,000 square feet, may have two dwelling units per lot, and which lots contain above 15,000 square feet, may have the number of units proportional to a density of 10 dwelling units/acre.

R GP-1-75 Resolution No. 11,770 May 6, 1975

| D.U./Net Area | Typi | | Number per Lot* |
|---|---|---|---|
| 1-5 | Sing | | |
| 6-10 | Sing | | |
| 11-15 | Single family and duplexes | 3,960 - 2,904 | 2.0 |
| 16-20 | Duplex, triplex and some singles | 2,722 - 2,178 | 2.5 |
| 21-30 | Moderate density multi-family (4-plex) | 2,074 - 1,452 | 3.4 |
| 31-40 | Multi-family only | 1,405 - 1,089 | 5.0 |

The recommended densities for each area of the city were arrived at by considering the following factors: age and condition of housing stock, size of houses, percentage of home ownership, present density, trends in apartment construction, conversion of residential areas to industry or commercial use, size of lots, and circulation patterns.

Commercial

The General Plan map shows five categories of commercial land, indicating a difference either in the nature of the business conducted or in the character of physical development. The commercial categories have been defined as follows:

- General Commercial - no specific requirements; may include stores, offices, banks, medical offices, etc.

---

*A typical lot is defined as a parcel 50' x 125' comprising 6,250 square feet.

- Tourist Commercial - located near freeways, and designed to draw much of its trade from non-residents.
- Auto Commercial - generally located along National Avenue -- indicates transportation-related retail.
- Shopping Centers - coherent development of retail stores and services; may be on a regional or community scale.
- Neighborhood Commercial Centers - provide convenience goods and services for the adjacent surrounding area.

Industrial

Three categories of industrial use are used on the General Plan Map. They are drawn from the Proposed Industrial Land Use Policy for National City, dated March 1972. The areas delineated and the standards and uses permitted for each zone are as stated in the Policy with one exception. The heavy industrial (MH) category is not used in the General Plan. It is not intended that existing heavy industrial uses should be terminated; they should be permitted to remain where they are, while proposed heavy industrial uses should be permitted in the medium industrial area subject to issuance of a conditional use permit. The General Plan categories are, therefore, Light Industrial, Medium Industrial, and Tidelands Industrial.

Public and Quasi-Public Facilities

Public parking and office building on "A" Avenue between 11th and 12th Streets, within an area designated "Historical Area" on the General Plan, is consistent with the General Plan subject to approval of a specific plan for this area by the Planning Commission and City Council.

Multiple family residential use with a density of 21 to 30 dwelling units per acre on the east side of "A" Avenue between 11th and 12th Streets, within an area designated "Historical Area" on the General Plan, is consistent with the General Plan subject to approval of a specific plan for this area by the Planning Commission and City Council.

GP-1-76 Resolution No. 12,000 March 23, 1976

The two open space categories are as follows:

- Parks and Recreation - this includes areas which are owned by the City

and are in this use; land which is owned by the city and which should be improved for this use; and lands which should be purchased and improved for this use.

- Conservation - this category includes some steep slopes and other natural areas with wildlife, vegetative, or scenic values. (These areas are indicated as "open space" on the General Plan Map.)

## LAND USE ISSUES, PROBLEMS AND POLICY RECOMMENDATIONS

The General Plan is concerned, among other things, with the arrangement of the major categories of land use and density as a means of preserving the integrity and amenity of residential neighborhoods as well as the economic viability of industrial areas and commercial activity centers, and defining the necessary circulation facilities in each area of the city. The General Plan Map shows broad categories which indicate the predominant uses of land to be achieved. These categories are not necessarily exclusive designations, and do not preclude minor deviations from the designated use, or such auxiliary uses as churches, small institutional or commercial establishments, and other existing small-scale features. Thus, the land use policies of the General Plan are expressed by the location of various uses and densities on the General Plan Map. These policies are discussed below.

### Residential Use

Residential uses presently occupy more area than any other single use in National City. Thus, the location of housing and the relationship of residential areas to other uses is of great importance to the quality of life in the city. Residential development and uses are found in all parts of National City. Some sections are entirely residential, while in others the residential uses have been encroached upon by other uses which are in some cases detrimental to the residential environment.

### Residential Use - Issues and Problem Areas

Much of National City's housing stock is quite old. Many homes are smaller than today's standards would permit or require. Many have been constructed

on lots which are either too small by today's standards (25' x 100') and do not permit expansion of homes, or on lots which are so deep (up to 400') that most of the land is left vacant and unused. The two most important issues relating to residential land use are multi-family residential construction occurring in previously lower density neighborhoods, and the industrialization of the residential Westside.

Since 1967, apartment construction has represented over 90 percent of the new residential units developed in National City. A lack of stringent controls prior to the adoption of Ordinance #1306 in August, 1972 led to the construction of many apartment buildings of low quality or poor appearance, often in inappropriate locations. Since the passage of Ordinance #1306, the standards for open space, parking, etc., in National City apartments have been raised. However, only 100 acres of the 650 acres currently zoned for multiple-family residential use have been developed with apartment houses. The development of the remaining 550 acres, even with higher standards, would strain National City's ability to provide services, and completely change the character of the community.

National City's present zoning ordinance has done little to protect single-family areas from the encroachment of apartment buildings. For example, although single-family residences occupy almost 1,100 acres, only about 400 acres of these are zoned for exclusively single-family use. About another 365 acres occupied predominantly by single-family residences are zoned for multiple residences. One reason that so much inappropriate apartment construction has taken place in single-family neighborhoods is simply that these areas were zoned for apartments in a premature and sometimes inappropriate fashion.

The area west of National Avenue contains the oldest homes in National City. Many of these are very small and in sub-standard condition or with no foundations; however, they provide the only housing that many National City residents can afford. Many of the lots on the Westside are only 25' x 100'; some have been combined to form lots which conform to more modern minimum standards, but many are too small to accommodate the type of additions which would be necessary to make the houses adequate for the number of people living in them.

The Westside is zoned for industry, and industrial uses have begun to encroach on residential uses in many blocks. West of I-5, the few homes which remain are completely surrounded by industry, and are not served at an acceptable level by any amenities -- e.g., parks, schools, retail facilities, etc. It is unlikely that these homes will still remain in 20 years' time. East of I-5, the industrial uses are more scattered. However, this spatial separation means that almost all the homes in the area are affected to some degree by the presence of industry. Noise, smoke, and in particular heavy trucks are found all over the Westside. Although there is probably not a unified "consensus of opinion" among the residents of the Westside concerning the long-term future of the area, it does appear that almost all of the residents do not wish to leave their homes until it is their personal decision to do so.

Residential Use - Policies

The General Plan Map designates approximately 75 acres for multiple-family use. The maximum permitted density of 31-40 dwelling units per net acre in this highest density category is lower than currently reflected in the Plaza Manor complex, for example. It is closer to that found in National City Park. The only location in which new construction at this density is designated is adjacent to the National City Park apartments. (Plaza Manor is indicated at this density in order to show that its actual higher density is not acceptable in terms of the proposed future policy.)

The residential category of 21-30 dwelling units per net acre occupies approximately 75 acres. New construction to this density level would be permitted in the area between Plaza, Eighth, Highland and Palm; south of Eighteenth from Highland to M Avenue; and between Palm and I-805 from Plaza to Eighteenth Street. This density range includes some triplexes, mostly four-plexes, and some larger units.

The residential density category of 16-20 dwelling units per net acre is indicated in areas totalling approximately 150 acres. These areas are located between Fourth and Eighth generally, from Highland to Palm; between Sixteenth and Eighteenth from Highland to Palm; just east of I-805 from Fourth to Eighth; and from Eighteenth to Twentysecond, generally between National and Highland.

This category includes mostly duplexes and triplexes, with some single-family residences.

Approximately 80 acres are designated for development in the density category of 11-15 dwelling units per net acre. This density is comprised of a mix of single-family residences and duplexes. These areas are located between Palm and I-805 from Fourth to Twelfth; between Twentieth and Twentyfourth from Highland to L Avenue; and between Twentyfifth and Twentysixth from B to F Avenues.

The exclusively single-family areas, designated for a density of either 1-5 or 6-10 dwelling units per net acre, occupy approximately 835 acres, or approximately 69 percent of all of the residential land indicated in the General Plan Map. Of this 835 acres, 735 are in the 6-10 unit density category (including 165 acres in the unincorporated Lincoln Acres area), and 100 are in the category of 1-5 units per net acre. These areas occupy most of the land east of I-805, the area west of Las Palmas Park below Eighteenth, and the area north of Fourth Street. Some smaller areas are also indicated: the blocks just west of Sweetwater High School; the area between Highland and Palm from Twelfth to Sixteenth; and between Fourth and Sixth from L Avenue to Palm.

The locational limitations imposed by the General Plan will direct residential construction to the areas most appropriate for various densities. The limit of 40 dwelling units per net acre will prevent excessive densities in all parts of the city. The new apartment house open space and parking standards in Ordinance #1306 have already begun to have an effect on new multi-family construction. A further control necessary is the establishment of an architectural review board to ensure a high level of design standards to improve both their appearance and their amenity characteristics. An architectural review should be part of the standard City review process for all major development in National City. The architectural review board may be made up of community residents with architectural training, or it may be composed of architects and similar professionals (e.g., landscape architects if the project will have significant open space) invited to sit as the need arises. In either case, the City Council should approve the makeup of the board and a set of policy guidelines for the board's actions.

The Westside is not shown in residential use. Over the twenty-year life of the plan, this section is envisioned as becoming exclusively industrial in its use and development. The measures which should be taken to maintain the residential community in the interim are discussed in Chapter VII.

Commercial Use

Most of National City's commercial development is of the "strip commercial" type, located mainly along Highland Avenue, National Avenue, and Eighth Street. These areas appear to be doing well, with few vacancies in existing facilities and few vacant parcels. The "mile of cars" on National Avenue extends generally from Twelfth Street to Thirtieth Street. South Bay Plaza, National City's regional shopping center, is located at the intersection of Highland Avenue and Plaza Boulevard.

Commercial Use - Issues and Problem Areas

1. National City currently has over 750 acres of land zoned for commercial use. However, only approximately 350 acres are either in commercial use or planned for commercial use in the near future.

2. The commercial development along National Avenue from Plaza Boulevard north is generally of a lower quality than that found elsewhere in the city. Many of the buildings are old and obsolete, and some of the uses are objectionable.

3. South Bay Plaza acts as an activity generator which benefits the businesses along Highland Avenue. However, South Bay Plaza is an older center, and has not been well maintained. Significant investment would be necessary to bring it to modern standards. At the present time, the May Company proposes to build a new regional center on the site of the Bonita Golf Course. There is no way to know with certainty what the effect of this new center would be on South Bay Plaza, but it is most likely that South Bay Plaza would not be able to compete, and would cease to serve as a major retail center. This could easily have a detrimental effect on business activity on Highland Avenue.

4. The "mile of cars" accounts for almost half of National City's retail sales. However, the future success of this retail area depends to a large extent upon the future energy supply situation and the ability or willingness of individual dealerships to adapt to new conditions and possibly to new forms of personal transportation.

5. Many of the business and commercial areas of National City evolved at a time when the provision of parking was not as important as it is now. Thus, although there appears to be adequate parking for present levels of use, future conditions brought about by new development may be such that parking will be inadequate in the downtown area.

Commercial Use - Policies

Commercial uses have been concentrated along National Avenue, Highland Avenue, Eighth Street, Plaza Boulevard, and Thirtieth Street. In addition, the General Plan shows most of the area between National and Highland from Sixth to Eighteenth as general commercial use. South Bay Plaza, the proposed Bonita Center, and South Bay Town and Country Shopping Center are shown. Neighborhood shopping centers are shown in residential sections of the city. Areas for automobile-oriented commercial use and tourist-commercial uses are also indicated. The current shortage of energy will possibly limit the opportunities for expansion or development of these uses temporarily, but future conditions are more likely to promote this type of use.

The location now occupied by South Bay Plaza would be appropriate for redevelopment in the event that South Bay Plaza is unable to maintain its status as a regional center (see Chapter V). Possible alternative uses should be explored. Such uses might include residential, office, commercial, or some combination of these.

Tourist commercial development is shown at the 24th Street/I-5 interchange and on northern National Avenue. The 24th Street/I-5 location is part of the E. J. Christman Industrial Park, and priority should be given to the needs of that development in the use of the tourist commercial areas.

The blighted blocks along National Avenue from 16th Street north to the city boundary are an appropriate location for a redevelopment project to encourage the type of businesses and facilities that National City finds desirable, particularly tourist-oriented commercial. This development close to I-5 and the proposed Heritage Square, could be a major commercial asset to National City.

The provision of adequate off-street parking should be a requirement for construction of any new commercial facility, no matter what its size.

Industrial Use

The area currently zoned for industrial use lies entirely west of National Avenue. It is bisected by I-5, which provides a divider between the area which has been developed for medium and heavy industrial use (west of the Freeway) and that which contains light industrial uses (east of the Freeway to National Avenue). The Freeway also offers the regional access that is necessary for healthy industrial growth.

Industrial Use - Issues and Problem Areas

The industrial area of National City is a mixture of planned and unplanned uses. The E. J. Christman Industrial Park, the Southland Industrial Park, and the Tidelands area have all been developed in a planned fashion. However, industrial uses have begun to develop in the residential areas of the Westside in a random, unplanned manner. This has led in many cases to bad location of uses, inefficient use of land, and low quality construction. If industrial development continues in the residential Westside in the current pattern, it will only intensify the problems now in evidence. Industrial traffic is not appropriate in a residential area, but if piecemeal development is allowed, there will be more of it than there is now. The small lot sizes make it difficult for industrial firms to put together enough land for a well-planned and well-designed facility, and without some controlled development, the shoddy, built-to-fit type of construction now in evidence will continue to be the norm. It is not likely that industrial development beneficial to National City will take place without a coherent program of planning.

Industrial Use - Policies

The General Plan Map shows the entire area west of National Avenue in industrial use, with the exception of some commercial areas associated with the E. J. Christman Industrial Park and the west side of National Avenue itself. Maritime-oriented industrial uses are shown in the San Diego Unified Port District lands; medium industrial uses are indicated for the area between the Port District lands and I-5. Light industrial uses will occupy all the remaining area west of National Avenue, and between National Avenue and Highland Avenue in the Sweetwater River flood plain.

If industrialization of the presently residential Westside is to be of a suitable character and beneficial to National City, it must be accomplished coherently. Further piecemeal conversion will only intensify the problems now faced by the residential community and will in all probability produce low-quality industrial development. One means to prevent this would be to establish specific plans on a block-by-block basis, as well as area-wide architectural and design standards. This would help to ensure that while industries would be developed on a one-at-a-time basis, the end result would be an industrial area composed of individual industries which were compatible with the area as a whole.

Public and Quasi-Public Facilities

The distribution and intensity of the different categories of land use, such as residences, business, or recreation, shape the demands for public facilities and services of all types, and influence their location, size, and operating requirements. On the other hand, the ability to provide public services and facilities effectively and economically limits the character and intensity of land use which is supportable, or which is feasible without major and possibly unwarranted investments of public funds. As the provision of adequate public facilities and services is solely the responsibility of public agencies, the major issue involved is the ability of National City and other appropriate agencies to provide an adequate quality and quantity of service.

The General Plan Map can only indicate the physical location of the major facilities necessary to provide adequate service, although the provision of

quality service through adequate personnel and equipment is also an important function and is discussed in the policy recommendations.

Some services are best provided on a city-wide scale (e.g., fire and police services); others are more appropriately provided on a smaller scale. The area used in this General Plan for provision of local services is the neighborhood.* Ideally, a neighborhood should have as its focus an elementary school with its associated recreation facilities, and be bounded on its periphery by arterial streets. Thus, children of elementary school age would not have to cross major streets to reach a school or a play area. However, National City's existing school locations and arterial streets, having been established as the city has grown, do not conform to this principle. Many children must walk across several arterials to reach their school, and some areas have far more schools and parks than do others. As it is not possible, or necessarily desirable, to force the changes necessary to accomplish the neighborhood pattern described above, some neighborhoods cross arterials and some do not have schools in them.

Facilities which should be provided in order to achieve proper service for future increased populations are indicated on the General Plan Map. The need for these facilities was determined by the level of service needed to preserve the existing neighborhoods and to create a neighborhood identity in areas which do not now have one. Neighborhoods in which a community-wide facility (such as Kimball Park) is located have not been considered for additional neighborhood facilities, although additions to or expansion of the community facility are sometimes indicated.

Public and Quasi-Public Facilities - Issues and Problem Areas

The current status of public facilities in National City can be summarized as follows:

1. Police: The police station is now located in the basement of the Civic Center. This facility is not adequate in terms of space requirements. The police-to-population ratio is below FBI standards and County average.

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*See Figure 2 in Chapter VII for the boundaries of residential service areas.

2. Fire Protection: There are now two fire stations in National City. One is located in the industrial area west of I-5; the other is at Sixteenth Street and D Avenue. Growth in the eastern section of the city may not be adequately served by the equipment from these locations. However, National City has mutual aid agreements with neighboring cities which enable other fire departments to respond if the emergency is closer to their jurisdiction.

3. Water and Sewers: The capacity of the facilities for these functions is adequate, not only for the present but also for the life of the plan on a city-wide basis. Individual proposals may put a strain on localized parts of the system. The condition of some of the pipes has deteriorated badly, and some portions of the system will need replacing. Adequate funds have not yet been budgeted for this purpose.

4. Library: The present building facilities are adequate for the short term. However, serious consideration should be given to the construction of a new central library within the 20-year time frame of this plan. Outreach facilities are not as complete as they might be.

5. Undergrounding of Utilities: San Diego Gas and Electric Company has an on-going program of undergrounding. New development, such as the E. J. Christman Industrial Park, has underground utilities.

6. Child Care Centers: National City has inadequate facilities for child care. However, there is a large population in National City which is in need of such a service. Women who are heads of households and other working mothers are a significant percentage of National City's adults.

7. Schools: None of National City's schools are over capacity, and recent trends indicate that school populations will continue to decline over the time span of the General Plan. The locations of some of National City's schools are unfortunate in terms of major streets which must be crossed by children in order to reach them. The Otis School and Lincoln Acres School were both built in 1927, and may become obsolete during the life of this plan.

8. Navy Lands: The approximately 300 acres of Navy land in National City include much valuable bay frontage. The Navy does not use this land intensively. Much of it is vacant and not maintained, particularly the part which lies next to Interstate 5 from the city limits to Eighth Street, and which provides the initial visual aspect of National City for southbound motorists. The Navy piers are used to berth the "mothball fleet" of inactive ships. The reassignment of ships and commands to San Diego has changed the Navy's plans for its property in National City. Far more intense use will be made of this land in the future, with construction of barracks, recreation areas, and a commissary planned.

9. Open Space and Conservation Areas: See Chapter VIII A and VIII B

Public and Quasi-Public Facilities - Policies

1. Provide the highest level of public services and facilities possible.

2. Be aware of changing service needs and requirements within the community and seek to fill those needs.

3. Become aware of, and utilize to the greatest extent possible, the facilities of the San Diego and South Bay regions to better serve National City citizens.

4. Install new sewer and storm drainage pipes as old pipes become corroded and begin to create service problems.

5. Add a material delivery van to National City's library facilities. Use new and innovative facilities within the existing library to increase the number of people who can benefit from the library.

6. Consider Otis School and Lincoln Acres School for replacement or demolition, as both schools will be approximately 75 years old by the end of the planning period (20 years).

7. Develop adequate facilities separate from the Civic Center, properly staffed, located with easy access to streets, to permit the Police Department to combat the ever increasing rate of crime, riots, disasters and other violent disorders in a more comprehensive, concentrated manner and improve and strengthen law enforcement within the City, (Present facilities within the Civic Center are becoming overcrowded and inadequate. If vacated by the Police Department, the area could be used to expand the administrative facilities.)*

8. Keep National City's police force at 0.3 percent above the national average, and backup staffing up to, or greater than, the County ratio.*

9. Plan to use a Police Department computer car-location system to handle the constant increase of requests for additional official information.*

10. When the Paradise Marina becomes a reality, provide ten (10) additional policemen and a police boat, or enter into a contract with the Harbor Police for facilities in this areas.*

11. A new fire station will be needed in the eastern portion of the City, possibly in the vicinity of Bonita Center within twenty years. The precise location will be determined at a later date.*

12. In order to arrive at the most efficient method of fire protection for residents in outlying areas of the City, consider participating in the South Bay Fire Services Unification Study.*

13. Encourage the establishment of child care centers in several sites throughout the city; appropriate facilities would be public schools or the proposed community service center.

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*The policy recommendations dealing with police service and fire protection address the need to include community safety concerns in the General Plan through the incorporation of a Safety Element as required by California Government Code Section 65302.1. Most of the issues dealing with community safety in this General Plan are included in Chapter VIII B: Environmental Management - Seismic Safety.

14. Concentrate the ongoing program of undergrounding utilities on a street-by-street basis in order to achieve a meaningful change. National Avenue, which is already almost 50% completed, should receive first priority; Highland Avenue should receive next priority.

## CHAPTER IV: CIRCULATION AND TRANSPORTATION

In the 1860's, Frank Kimball laid out the street pattern for the area west of National Avenue -- at the time, the only settled part of National City. Since he envisioned that National City would be a major railroad terminus, he designed 80 foot-wide streets so that the horse-drawn carts which would bring goods to the railroads could turn around easily. He laid the streets on a grid because that was the simplest pattern to use. These streets are still in use today, although their intended function ceased to be a possibility long ago. They now serve as residential streets, but their layout and design have not been changed to reflect this use. However, the relationship between land use and circulation that Frank Kimball saw still exists today, and the streets that he laid out are now out of proportion for the job they are required to do.

The complementary process by which circulation determines land use and land use affects circulation may be further illustrated by the commercial strip on Highland Avenue. The wide roadway makes travel relatively easy, and its routing and connections are such that many people use it as a through street. The high traffic volume generated in this way makes it a good location for businesses because of the high degree of exposure they can achieve. The businesses which locate on Highland place their own added demands on the street. They require access and parking, which make the street less efficient for through travel. The extra traffic generated by the businesses also strains the capacity of the street. When Interstate 805 is completed, some of the through-traffic will probably leave Highland Avenue. This may harm some businesses, but it may also make shopping easier, and since Highland is an established shopping area, it may not suffer in the long run.

Circulation systems also help to define the visual character and physical form of the city, and help to relate the city to its regional context. Most visitors see a city almost entirely from a car, bus or train. The appearance of the streets themselves -- how well they are maintained, whether or not they have trees or median dividers, whether they are straight or curved -- is as important to a city's character as the appearance and nature of the abutting land uses. The degree to which a city can participate in the region's economic and social activities is determined partly by the ease of access to regional transportation and circulation which its local system provides and by the proximity of regional circulation corridors.

Streets are also closely related to public safety. Provision of access for fire, police and medical vehicles is an important function of public streets. The safety of pedestrians (and, in many cases, drivers) may rest on the adequacy of roadway design, signing or signalization.

FUNCTIONAL ELEMENTS

The General Plan proposes five functional classifications for streets and roads in National City. These classifications are intended to provide a) a guide to implementing the General Plan proposals, and b) the necessary information for obtaining State and Federal funds earmarked for certain types of streets. The classifications are:

1. Freeway: A limited-access, high-capacity and high-speed road designed to provide inter- and intra-regional access with no interference with local traffic patterns. For example, I-5 and I-805.

2. Expressway: A semi-controlled access, high capacity road designed to provide inter- and intra-regional access with little interaction with local traffic patterns. For example, Route 54 east of I-805.

3. Arterial: A local street with medium capacity, designed to move traffic from one point in the city to another, and to provide convenient access to freeways. The access to these streets should be somewhat limited in order to improve traffic flow. For example, National Avenue.

4. Collector: A local street designed to carry traffic from residential streets to arterials. For example, 4th Street.

5. Neighborhood Street: A low-capacity street designed to provide direct

**The Circulation Element of the National City General Plan is amended to add thereto the following roads as shown on the Circulation Element of the County General Plan:**

**A. Bonita Center Road between Sweetwater Road and Bonita Road.**
**B. Sweetwater Road (30th) between National Avenue and Bonita Road.**
**C. Reo Drive between South Bay Expressway and Sweetwater Road.**
**D. Division Street between Harbison Avenue and Plaza Boulevard.**

**GP-2-76 Resolution No. 12,118 August 24, 1976**

PUBLIC TRANSIT

Rapid Transit

There is no rapid transit in the San Diego region at this time. However, the San Diego Comprehensive Planning Organization has begun preliminary planning for a fixed-rail rapid transit system which would serve the urbanized sectors of the region. National City will most likely be included in this system. Three alternative locations for rapid transit routes and their respective station locations are shown on the General Plan Map. Two types of stations are suggested: one providing substantial parking facilities for commuters, and one serving as an inter-modal station which would have only very minimal parking facilities. An inter-modal station would be designed to serve as a transfer point between two or more modes of transportation, such as between buses or taxis and rapid transit trains. The three alternative routes are as follows: 1) a route utilizing the railroad right-of-way directly east of I-5 constructed either at ground level, underground in some portions, or elevated; two stations are indicated for this route: a combination commuter station and inter-modal station at 8th Street, and a commuter station located within the Route 54 right-of-way at the southern edge of the city; 2) a route along Highland Avenue constructed underground; commuter stations are indicated at both the northern and southern edges of the city utilizing Route 252 and Route 54 rights-of-way, respectively, and an intermodal station is indicated in the area of Plaza Boulevard and Highland Avenue; and 3) an elevated route located in the median of I-805; commuter stations are indicated in the I-805

right-of-way both at the northern and southern edges of the city, and an inter-modal station is shown in the freeway right-of-way at Plaza Boulevard.

Buses

Buses are now the primary means of public transit in National City and the San Diego region, and are likely to remain so for the foreseeable future. National City is served by local and regional routes. San Diego Transit, which provides the bus service, has recently announced a planned increase in the number of buses allocated for National City's local and regional service.

## SCENIC HIGHWAYS

There are no roads in National City which are either scenic highways or on the list of roads which are eligible to become scenic highways. Route 54, which forms the northern boundary of the outlying portions of the planning area, is in a scenic area. However, it is not within the present borders of National City for most of its length. Thus, if National City wants Route 54 to be declared a scenic highway, the cooperation of both San Diego City and San Diego County must be sought in order to request the designation. The controls which would protect the scenic corridor must be enacted by the local jurisdictions.

## EXISTING CONDITIONS AND PROBLEM AREAS

Street Width

Most street rights-of-way in National City are at least 60 feet wide. In the Westside, they are all at least 80 feet wide. This excessive width in residential areas often leads to inappropriate use: too many people use residential streets for through travel, and often drive too fast. It is also a waste of valuable land area that could be put to more productive use.

Traffic Volume

Several arterial streets in National City are heavily travelled, with some

operating in excess of their capacity to handle traffic efficiently. Eighth Street is one of these streets. At the evening rush hour, there is congestion in the eastbound lanes, particularly at Highland Avenue, where many people make left turns and there is no left turn arrow or center turn pocket. Highland Avenue, which has a right-of-way 80 feet wide, carries over 25,000 cars per day in some locations, while National Avenue, which has a 100 foot right-of-way, carries only 20,500 cars per day at its busiest point. Both streets serve the combined functions of arterials and major commercial streets, and traffic movement is affected by this. The greater volume of traffic on Highland is probably due to the more intense commercial development found there. Thirtieth Street/Sweetwater Road is also congested at the peak evening hour with homeward-bound commuter traffic headed east. Traffic generated by the proposed Bonita Center could compound this problem, but as shopping center-generated traffic peaks do not occur at the same time as work-generated traffic peaks, the effects might not be severe. However, Bonita Center will create circulation difficulties in its immediate area.

Eighth Street - Plaza Boulevard

These two streets are only two blocks apart from I-5 to M Avenue, and yet both serve as arterials, isolating Central School from the residential community to the north it is intended to serve. The arterial function of Eighth Street makes it difficult for shoppers to patronize the businesses located there due to lack of off-street parking.

At present, the northbound and southbound on-ramps and the southbound off-ramp from I-5 connect with Eighth Street. The northbound off-ramp from I-5 links into Ninth Street at present, although it will soon be moved to Plaza Boulevard.

The only interchange connecting the local street system to I-805 in National City will be at Plaza Boulevard. These configurations cause some of the traffic problems on Eighth Street. The completion of I-805 may relieve some of the peak hour congestion on Eighth Street, if traffic travelling south and bound for the areas east of National City transfers from I-5 to I-805 on Route 94. The completion of Route 252 connecting I-5 and I-805 north of National City would certainly relieve congestion on Eighth Street. However,

the San Diego City Council will vote in October 1974 whether it wishes to rescind the freeway agreement it signed with the State for this route. If the Council decides to honor the freeway agreement, the project will probably go to bid early in 1975.

Access for Safety Vehicles

West of I-805 there are adequate through-streets to provide good access for fire, police, and medical vehicles in case of emergency. However, east of I-805 there is no continuous north-south through-street for this purpose. The completion of Euclid Avenue/Orange Street will help in solving this problem. An extension of Rachael Avenue could be considered for this purpose; however, possible conflicts with requirements for seismic safety, such as determining the activity of the nearby Sweetwater Fault, should be resolved first.

Neighborhood Circulation Patterns

National City's grid pattern and wide streets make it difficult to protect residential neighborhoods from the intrusion of fast-moving through-traffic. Also a number of arterial and collector streets are also residential streets for at least part of their length. Several existing neighborhoods were divided by the construction of I-805.

POLICIES

1. Coordinate the planning, development and operation of the various elements in the transportation system (road, rail, etc.) to recognize interrelationships both between one element and another, and between each element and the land uses they serve or affect.

2. In the absence of public rapid transit facilities, make every effort to encourage the extension of bus routes to serve more areas of National City, (particularly in an east-west direction, where there is now a great deficiency in service) and to provide connections between concentrated activity areas (commercial, industrial, and high-density residential areas, including mobile home parks).

3. Support the concept of fixed rail rapid transit for the San Diego urbanized region. Seek to obtain one of the three route/station alternatives indicated on the General Plan Map and discussed previously on page 33.

4. Consider road, railroad and other rights-of-way that are to be abandoned for other public uses (park and recreation, trails, bicycle paths, etc.) before conversion to non-public use.

5. Landscape freeways and expressways in both shoulder and median areas. This landscaping should be properly maintained. Arterials should have left turn lanes.

6. Freeways and major streets should not bisect neighborhoods, communities, business areas, parks or other homogeneous areas, but should be designed to form the boundaries of such areas and to connect population centers and other major traffic generators.

7. Schedule street improvement (paving, grading, curbing, etc.) on a regular basis throughout the city; coordinate scheduling of street improvements with residential rehabilitation efforts in areas where neighborhood conservation activity is planned.

8. The designation of a street as an arterial, collector, or neighborhood street indicates a specific function and relationship to abutting land uses. Streets should be designed so that they serve the function they are intended to serve. For example, neighborhood streets should have rights-of-way sixty feet wide. All collector streets should have four-way stop signs at intersections with other collectors and arterials in order to slow traffic and keep these streets from serving as arterials. Arterial streets should be well-spaced, and the number and frequency of intersecting local streets should be limited.

SPECIFIC POLICIES

1. Establish Palm Avenue as a collector street through to 30th Street.

2. Complete Euclid Avenue/Orange Street as soon as possible.

3. Implement the recommendations in the 1972 TOPICS report as soon as practical.

4. Establish two-way left turn lanes on National Avenue and Highland Avenue, with red curbs on both sides of the street, at a future time as required by increases in traffic flow. Install traffic lights with left-turn signals at major intersections. Construct a planted median on Plaza Boulevard to reduce cross-traffic and improve the street's appearance. (As a temporary measure, install "4-6 PM Right Turn Only" signs on local streets and commercial driveways entering the south side of Plaza Boulevard.)

5. Whenever possible, close neighborhood streets to through-traffic by the placement of traffic diverters. These should initially be of temporary construction to allow an adequate trial period.

6. Limit the number of intersections of local streets with arterials by closing selected local streets to automobiles at the arterial. Pedestrian access should be permitted.

7. In cases where it is not possible to close streets at their intersections with arterials, permit right turns only during rush hours, or at all times if necessary.

8. Place attractive entrances to National City where all freeways and arterial streets enter the City.

9. Consider the older business portions of National Avenue, Highland Avenue, and 8th Street as potential areas for off-street parking assessment districts.

## CHAPTER V: NATIONAL CITY CENTER

National City has the opportunity of developing its central area into a revitalized center for various types of activity. The General Plan identifies a City Center Study Area, presented in Figure 1 in Chapter III. This area extends easterly from Kimball Park, includes South Bay Plaza, and continues along Plaza Boulevard to I-805. Brick Row, and several adjacent blocks linking this historic area to Kimball Park, are also included in the study area. This area presents many opportunities for development, for recycling of land uses, and for improving the quality of existing development. It is located in the heart of the city and has excellent access to two freeways.

Kimball Park is located in the core of this City Center Study Area. The park contains the National City Civic Center, Library and Community Building, and is located near the shopping focus of National City (Highland Avenue and Plaza Boulevard), but does not connect with it in any effective way - either visually or functionally. The present land uses and circulation patterns preclude such a relationship. However, changing conditions and the existing plans the City has supported for some of the blocks in this area make it possible to initiate an action program which would eventually result in the area becoming a major portion of a coherent "City Center," possibly combining civic, residential, and commercial uses. Such an area would provide a pedestrian-oriented center where many services would be conveniently available, an identifiable focus and "downtown" for National City, and a generating force for the upgrading of the surrounding area and the construction of higher-quality development.

## THE CONCEPT

Realignment of land uses and activities in the present Kimball Park - South Bay Plaza area of the City is an essential component of the plan to create a National City Center. Certain spatial relationships, however, should remain constant. The most important relationship, and the one that the new City Center would seek to highlight, is one which can be created by linking the Civic Center on the west to the Montgomery Ward shopping area on the east and also to the area extending from Highland Avenue to I-805. Connecting these focal points and the areas intervening and adjacent to them into a City Center will involve two different but complementary uses: an imaginatively designed, attractively developed open space corridor connecting the two major activity areas, interwoven with land uses such as offices, a community service center and the like. The intent is to provide an attractive and intensively used center, combining many of the activity and service needs of the community.

Intensification of shopping activity through development of new retail outlets in the open (or parking) areas surrounding Montgomery Ward could provide the City Center with greater shopping attraction in the future. Existing parking areas could ultimately be replaced by construction of a parking garage to the north of the building and one other facility central to the new development. A transition between the new, more intensely developed, retail center and the Civic Center could be provided by supporting uses such as offices, bank branches, possibly a church facility, as well as the senior citizens residence and community service building presently planned. The replanning of Kimball Park is an important component of any specific design or site planning undertaken, so as to maximize its role as the major community open space. A range of passive as well as active recreation provisions should augment its role as the "town green" and its utility as a pedestrian corridor.

The impact which the proposed Bonita Center shopping center will have on the South Bay Plaza, as well as on other commercial establishments within the City Center Study Area, should be closely monitored. This monitoring process should aim to determine the viability of South Bay Plaza as presently constituted, and to determine the feasibility and desirability of integrating the existing commercial facilities with any new development which might be

located across Highland Avenue in the area presently occupied by the Montgomery Ward parking lot.

MAJOR OPPORTUNITIES AND CONSTRAINTS

The following summary of characteristics of the proposed City Center area briefly explore some of the positive and negative aspects of existing conditions as they affect the City Center proposal.

1. Many components of the proposal presently involve public property and improvements, which are in part or in whole already programmed by the City for the future. These improvements can and should be readily responsive to new developing public policy. A major segment of the land necessary to achieve the important link-up between public and commercial use is presently being planned for the senior citizens' residence and the community service center. While located to the south of the major center area, the Boys Club property and Fire Station location should be considered supporting activities. Prior to construction, therefore, these planned locations should be reviewed in the light of a comprehensive site plan.

2. A key link in the connecting corridor between the two major activity areas is the site presently occupied by St. Mary's School, a facility recently closed by the Catholic Church. Negotiations to reserve this location for future public or semi-public use should be instituted to ensure the success of the total project.

3. Large vacant unimproved areas and the under-utilized sections of the Montgomery Ward's parking lot provide the impetus for the effort to achieve more intensive use of the area, and offer important opportunites for the design of an essentially new, community shopping center on that site. Opportunities for improving access to the existing Ward's building, and for re-orienting the floor plan of the building itself to provide a better relationship to new shopping activities should be investigated. The proposed commercial center is projected as a community shopping center rather than a regional shopping center. It is also appropriate to this City Center location to provide for weekly and some convenience shopping

rather than for the occasional shopping trip generated by the types of facilities typically found in a regional center.

4. The Plaza Boulevard - Highland Avenue intersection is located on one of the three alternative routes recommended for a fixed rail rapid transit system; this alternative includes a station at this location. Even before a rail system is initiated, this location could be used as a multi-modal transit center offering the services of airport limousines, buses, taxis, etc. The City Center functions and the resident population would benefit from such a service and would provide the basis for the support of these services. Another alternative rapid transit route, located in the median of I-805, includes a station at the eastern edge of the City Center Study Area, at Plaza Boulevard within the I-805 right-of-way.

   Changes in circulation patterns on Eighth Street, Plaza Boulevard and Highland Avenue are required both by the problems and traffic conflicts already occurring, and the need to respond to future circulation demands that will arise with or without the development of the City Center. The City Center project can provide a mechanism and program for phasing and financing the revisions in the circulation system at this location.

SEQUENCE OF REQUIRED ACTIONS

The following is a summary of steps that might be taken following approval of the National City Center concept presented in the General Plan.

1. Utilizing the best available urban design expertise, the City Council should proceed at an early date to identify specific recommendations for the area delineated for a new City Center for National City. Early review is essential to establish whether the site plans presently proposed for the Senior Citizens' housing and the Community Services building provide optimum relationships for the completed City Center design. The general proposed land use allocations contained in this report should be refined, and design of the new City Center should proceed as soon as possible.

2. Economic feasibility and market studies of the proposed City Center should follow preliminary urban design studies. The two phases of detailed planning should be closely coordinated so that the final plan integrates the physical and economic aspects of the proposal.

3. Communication should be established between the City and the Catholic Church since a mutually satisfactory arrangement for the future of the Church property is important to the success of the project.

4. Concurrent with the preparation and adoption of the detailed City Center design, the City should maintain continuing liaison with appropriate executive management personnel of both Montgomery Ward and the South Bay Plaza, and other property owners in the study area. The purposes served will be both to provide information to these companies and to invite their active participation in the plan. It will be equally important to provide City management with the information and responses needed to determine both the need and the feasibility of utilizing the existing redevelopment powers of the City.

   A renewal project for the area may become appropriate with emphasis placed on working with Montgomery Ward, South Bay Plaza and other property owners as major "owner-participants" as defined in the California Redevelopment Law. Thus, the City could undertake detailed planning and final implementation in partnership with these major land owners and acquisition of properties would primarily occur where re-subdivision of properties for future uses would be mutually beneficial.

5. Construction of the Senior Citizens' residence and Community Service Center should proceed as soon as the City Center design plan is approved, and when the exact site locations can be determined in an appropriate and compatible fashion in relation to the overall area. This should be within the next three years.

6. Necessary public actions, such as the closure or realignment of streets, acquisition of small properties where necessary, and the initiation of any

necessary changes in the design or layout of Kimball Park, should take place early in the project program. Acquisition, site preparation and disposition of land proposed for new office building facilities should closely follow these revisions of public land areas.

7. Paralleling these public efforts, the major owner-participants should work with their own consultants and design teams to detail that portion of the City's overall City Center plan. It should be expected that City staff will participate in this private development program to ensure appropriate quality and compatibility of the planning and design with City goals for the areas and to monitor the timing of development to provide an optimum sequence essential to success.

## CHAPTER VI: THE OUTLYING PORTIONS OF THE PLANNING AREA

The National City Planning Area includes the following areas; 1) the major portion of the city itself, 2) the area occupied by salt evaporating ponds at the southern end of San Diego Bay, which is within the city limits of National City, being connected to the main portion of the city by a strip of submerged land, 3) the Lincoln Acres area, which is unincorporated but largely surrounded by areas within the boundaries of National City, and 4) an unincorporated area within the Sweetwater Valley. The major portion of the city itself, together with Lincoln Acres, have been dealt with in the body of this report and are included in the General Plan Map.

NATIONAL CITY'S SOUTH BAY EXTENSION (See Outlying Areas Map, Section A)

The triangular shaped water and salt pond area in the southern portion of San Diego Bay and the submerged strip connecting this area with National City proper contain approximately 500 acres. This entire area is under the jurisdiction of the San Diego Unified Port District. Approximately 165 acres leased by Western Salt Company are presently being used as salt ponds. State legislation enacted in 1973 (Chapter 1114, 1973 Statutes) has mandated that the title to the land presently being leased by Western Salt Company reverts to the state as of January 31, 1984. The legislation directs the Resources Agency, in cooperation with the State Lands Commission, to determine which state agency should be assigned jurisdiction over these tidelands; the bill requires that special consideration be given to the practicability of transferring the tidelands to the Department of Parks and Recreation for inclusion in the State Park system. The General Plan designates this area for "Preservation and Research" which is consistent with the designation of the area on the Port District Master Plan. A state park natural reserve would be compatible with this designation.

SWEETWATER VALLEY (See Outlying Areas Map, Section B)

The Sweetwater Valley portion of the National City Planning Area consists of approximately 3.7 square miles of unincorporated territory extending easterly from I-805 to the Sweetwater Reservoir, lying south of State Route 54 and generally north of Bonita Road. The Sweetwater River flood plain occupies the southern portion of this area. The northern portion is generally characterized by hilly areas bisected by tributary valleys feeding the flood plain. The existing development in the area is composed almost entirely of single-family homes which range in density from under one to slightly over three dwelling units per net acre. The residential development, much of which is in a semi-rural setting, contains homes which have generally higher values than those found within the city limits of National City itself.

National City, of course, will have no direct influence on the development of this area unless it is annexed to the city. The residents of the Sweetwater Valley area have resisted annexation to either National City or Chula Vista. The Local Agency Formation Commission has not as yet established spheres of influence to govern annexations. This area is also part of the larger County-designated Sweetwater Community Planning Area; the San Diego County Planning Department has begun work with a local citizen group to prepare a community plan. People in the area have expressed desires for a continuation of the low density semi-rural environment.

Land Use Categories

There are only two major categories of land use shown on the General Plan Map for the Sweetwater Valley portion of the Planning Area: residential and open space. A small area on the east side of I-805 is shown as tourist commercial use.

Residential Development

The only category of residential development shown on the plan map corresponds to the lowest density category indicated on the General Plan Map for the city itself: 1-5 dwelling units per net acre. Most of the existing zoning (by

San Diego County) in the area would allow a maximum of two dwelling units per net acre. Although the proposed plan designation would indicate a maximum density of five dwelling units per net acre, it is the policy of the General Plan that the density and character of development which is allowed should be compatible with neighboring residential development as it now exists. In most cases this would indicate densities lower than five dwelling units per net acre.

Soil conditions in certain portions of the Sweetwater Valley area present some severe problems for residential development, as is discussed in the Conservation section of the chapter on Environmental Management, and in the Technical Report. Regulatory devices such as subdivision and grading ordinances should insure that problems associated with erosion, shrink-swell characteristics, and runoff potential are adequately dealt with. All future development should be required to tie into existing sewer systems because of on-site sewage effluent disposal limitations. Those areas characterized by steep slopes have not been designated for future development (see below).

Open Space

The two sub-categories of open space are parks and conservation areas. This General Plan includes the Sweetwater Regional Park as proposed by the San Diego County Park Development Division, except for the area known as the Bradley Annexation which is designated for Tourist Commerical and Equestrian Park uses. An area adjacent to the Sweetwater Reservoir, which is presently owned by the California American Water Company, is being condemned by the Sweetwater Authority (composed of National City and South Bay Irrigation District). This area is not part of the park plan, nor does the County intend to buy it. However, the County does hope to lease this land from the Sweetwater Authority for recreational purposes, and thus it is shown as a recreational area on the map. The conservation category is made up almost exclusively of steep slopes. Steep slopes should not be developed if erosion and sedimentation problems are to be avoided and if the aesthetic character of the area is to remain intact. Some isolated very low density development might be compatible with the steep slope areas, but large-scale grading and subdivision activity should not be allowed.

A trail system connecting the Sweetwater Reservoir with San Diego Bay has been proposed. The General Plan recommends that access be provided for this trail under I-805 (using the flood control channel) and under Bonita Mesa Road. An underpass should be provided when Bonita Mesa Road is relocated, since the volume of traffic it carries will be quite large once the Bonita Center is constructed.

Public Facilities

The only public facility indicated on the General Plan - Outlying Areas Map is the existing school on Sweetwater Road near Valley Vista Way. However, with increased residential development, another school facility may be needed within the next twenty years.

The Sweetwater Valley offers National City very limited opportunities for "growing room" due to a) the negligible opportunities for annexation in the foreseeable future, given the local resistance to such annexations, and b) the public opposition to and general inappropriateness of anything but very low density development. In any case, there is very little land available for development because of the great amount of land in areas characterized by steep slopes, and hazardous soil and geologic conditions. Keeping these limitations in mind, National City will continue to pursue a policy of encouraging annexations in the Sweetwater Valley where possible.

# CHAPTER VII: HOUSING AND RESIDENTIAL NEIGHBORHOODS

## THE REGIONAL CONTEXT

Housing markets and their characteristics such as deficiencies in supply, high interest rates, increasing costs of construction and of land, are essentially a function of economic forces which transcend city boundaries and which operate on a metropolitan, state, and even a national scale. Housing supply and demand in the San Diego region (and which therefore affect directly in some measure National City) are particularly subject to fluctuations generated by factors essentially national. The presence of major military bases and the effect of national policy on both the size and scope of military activities and on the region's aerospace industry causes fluctuations in population and demand for housing. The increasing mobility of the American retirement age group is another national phenomenon with continuing impact on housing throughout the San Diego region as more older persons seek out the area's pleasant climate. Since the direction and extent of these changing influences are difficult to predict, the region as a whole and National City as a part of it can be expected to show substantial cyclical fluctuations between under- and over-supply of housing, exaggerated by the time lag involved in the building industry's response to new or reduced demands.

The pleasant, moderate climate of the region is also a factor in the San Diego housing market. In addition to creating a demand for retirement housing, the mild climate has affected, sometimes adversely, the style and the quality of housing construction. The need for weather protection in the San Diego area is minimal, which in the past resulted in a lower standard of construction which has led to a diminished life expectancy for buildings, and to the creation of housing areas that have deteriorated more rapidly than would be the case in some other areas.

The San Diego region is a major point of entry for new immigrants and it therefore experiences minority housing problems similar to those experienced on the nation's East Coast a century ago. The language, education, and employment problems faced by this population group create a continuing pressure for low and moderately priced housing.

Each of these pressures and problems of housing in the region have critical impacts on National City. Low incomes among military families, minority and elderly households combine to create a demand for the city's moderately priced homes, but the prevalence of low incomes in many portions of the city presents a major obstacle to the improvement of homes and neighborhoods in declining residential areas.

## EXISTING HOUSING SUPPLY*

Located on the inner ring of the San Diego region's urbanized area, National City's residential development shares most of the housing characteristics and problems of older cities. National City's single family homes are older and smaller than those of the region as a whole. They provide housing at a relatively low or moderate cost level, and the areas of early development are in poorer condition than are found in the region in general which has experienced rapid development of modern housing in recent years.

Smaller homes available at reasonable cost are the most characteristic aspect of housing in National City, and this type of unit can be found throughout all residential areas. Important variations in age and condition exist, however, with older residences in poorer condition found predominantly in the western and northwestern residential areas. Because the households occupying National City's single family homes are of a relatively larger than average size, the small homes of National City tend to be more overcrowded than is true for the region as a whole. The characteristic low incomes of these households have quite evidently placed them in the position of having to choose between too small a home at a reasonable price or a more appropriately sized home at an unacceptably high cost in proportion to the family income level.

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*This summary analysis is drawn from supporting data contained in Preliminary Report on Existing Conditions, Trends, and Issues in National City.

As in the San Diego region as a whole, in National City the proportion of housing units in multi-family structures or apartments is rapidly increasing. Because of its location near central San Diego, the rate of increase in National City has been much greater than that of the region, and the problems that typically accompany the impact of this housing type upon existing low density residential areas have become critical. Resolution of the problems and control of further apartment construction are an important aspect of General Plan implementation.

While rental housing in National City is primarily located in apartment houses. an increasing proportion of single family homes are renter-occupied. This is a particularly marked trend in the western portions of the city, but is found at higher proportions than usually occurs in most city neighborhoods.

## ISSUES AND PROBLEMS

Despite the essentially regional or larger scale character of housing markets, the planning for residential areas and the determination of public policy and implementation procedures for housing that are most operative are undertaken by municipal governments. Building codes, and zoning and subdivision regulations are determined by local government. Both the Federal and state governments apportion programs and monies implementing major housing policies on a city-by-city basis. In addition, city governments are often able to bring together private interests and agencies for the solution of housing problems. The major housing issues facing National City which require local public policy determinations and implementation are defined and discussed below.

### Conditions in Single-Family Neighborhoods

The gradual deterioration of many National City residential areas as neighborhoods providing attractive amenities for family living is a problem involving one-sixth of National City's land area; a majority of the non-military residents of National City live in this area. Contributing to this decline are the poor housing conditions in many older areas and random private redevelopment to more intensive land uses which has disrupted formerly homogeneous residential

neighborhoods. Occasionally inadequate or poorly located public services and facilities contribute to the deterioration of the residential character.

Protection and improvement of neighborhoods of single family homes are crucial to the stabilization and appreciation of single family home values in National City, since new row housing and cluster development occurring throughout the region will soon begin to compete with National City housing for families requiring small houses at moderate cost.

Apartment Construction

The development of multi-family residential structures throughout the city has been rapid and visible. The City must deal effectively with the specific issues of apartment house quality, location, and size, as well as the general question of the extent of apartment house construction throughout the city.

The apartment house issue calls for consideration of conflicts. Some of these conflicts involve the size of multi-story structures in relation to the current one-story homes in the open residential landscape that currently characterizes the city. Other conflicts occur as the result of the differing interests and attitudes of tenants and owners, particularly as close neighbors. Like all housing issues, further multi-family residential building cannot be treated in a simplistic fashion, by following a single policy, but should be recognized as a complex of negative and positive factors requiring sensitive evaluation and decision-making.

Overcrowding

The extent of overcrowding found in almost all of National City's single-family neighborhoods is an indicator of a poor "fit" between households seeking housing in National City and the housing currently available. Since overcrowding is frequently a matter of the economics of individual households (larger families with low to moderate incomes) the solutions to this problem must be sought in general improvement of employment opportunities for residents as well as in improving the housing supply to better meet current housing needs.

Homogeneity

The homogeneity of National City's housing units in terms of size and cost creates critical imbalances in the range of housing available in the city.

While small units at moderate cost provide a much-needed housing type for the young, the old, and the poor family, the dearth of homes appropriate for middle and upper-middle income families prevents the upwardly mobile family in the middle years from finding the larger, more modern housing that they can afford in National City. Such families are forced to sacrifice the locational advantages of National City and seek such housing elsewhere.

Rental Housing

An increase in tenant occupancy as opposed to owner occupancy is a clear trend in National City over the last decade. This is attributable both to the increase in the number of apartment units and to a substantial number of single-family homes that are increasingly occupied by tenants. The change-over to tenant occupancy in predominantly single-family areas has occurred primarily to the west of Highland Avenue. Tenant occupancy of single-family homes presents an obstacle to successful rehabilitation or code enforcement efforts in declining residential areas since owner-neighbor cooperation is usually essential to a successful upgrading program.

POLICIES

The following summary statements outline housing policies for National City.

1. To maintain, conserve, protect and improve all existing National City residential neighborhoods wherever feasible. Protection of the integrity of these neighborhoods shall include the prevention or minimization of the possible adverse impacts of through-traffic, conflicting land uses and inadequate public services.

2. To encourage and assist the rehabilitation of existing housing units located in the residential areas designated in the National City General Plan.

3. To regulate the development of vacant parcels in residential areas so that new housing is developed at appropriate densities and is designed in a manner that preserves the character and attractiveness of the existing neighborhood.

4. To limit new multi-family housing development to specific appropriate locations as designated in the General Plan. New apartment building construction should not be permitted in predominantly single-family home areas.

5. To provide for the housing needs of the city's residents through programs to increase the supply of larger low cost housing units (see Recommendations below) and the supply of housing meeting the specialized needs of the elderly.

6. To encourage the development of a better balance of housing type, size, and value than is currently available in National City.

7. To ensure that all city-sponsored housing programs provide shelter for National City residents without regard for nationality, race, sex, or age, and to discourage discriminatory housing practices in the private housing market.

SPECIFIC POLICIES

The General Plan presents a comprehensive approach to improving the quality of the environment of National City's residential neighborhoods. The principal procedures followed in the preparation of the residential portion of the Plan are a) the establishment of locations for varying housing densities, b) the delineation of residential neighborhoods on the basis of land use and traffic barriers, school and park service areas, and cohesive characteristics such as the type of housing development, and c) an analysis of the condition of the homes in the various sections of National City, in terms of their need and potential for rehabilitation, and their probable economic life (or continuing attractiveness as dwellings in the future). From this analysis it was possible to define coherent groups of residential blocks which reflected

similar characteristics in terms of the specific treatment or program required for their restoration or improvement. These areas form the geographic basis for a comprehensive city program required to implement General Plan policies and goals. The treatment types developed for use in the various sub-areas are listed below:

Treatment Type I: No housing unit rehabilitation needed; improved standards for future development recommended.

Treatment Type II: Some residential structures are in need of rehabilitation, but such improvements will infuse another thirty to forty years of life into the upgraded buildings. FHA rehabilitation standards and programs may be used in these areas.

Treatment Type III: Many houses are in need of major repair and can be rehabilitated to provide a moderate level of housing amenities and meet the health and safety standards of the National City Housing Code. Standards are aimed at extending the life of the home fifteen to twenty years. Poor housing conditions, the small size of single family units, and probable future pressures toward higher density of residential or other types of development make it impractical to attempt thirty- to forty-year rehabilitation. A city-sponsored revolving fund (as discussed in list of specific housing recommendations) would be appropriate to assist in financing home improvement.

Treatment Type IV: Residential areas requiring this type of treatment are dominated by housing in poor condition. Rehabilitation (in terms of minimum health and safety standards) should be regarded primarily as a "holding action" since the area is essentially in need of redevelopment either for replacement housing or for recycling to another land use.

Treatment Type V: Existing residential areas with housing in very poor condition requiring clearance in the near future.

The location of the residential neighborhoods, or service areas, and their sub-areas which were analyzed as units, is indicated in Figure 2. Table 3, Summary of Housing and Residential Neighborhood Proposals, provides a

TABLE 3

SUMMARY OF HOUSING AND RESIDENTIAL NEIGHBORHOOD PROPOSALS

| Sub-area[1] | Recommended Treatment Types for Existing Housing | Plan Densities[2] |
|---|---|---|
| 1 (a) | IV | Industrial Use |
| (b) | V | Industrial Use |
| 2 (a) | II | 6-10 |
| (b) | III | 6-10 |
| (c) | IV & V | 16-20 |
| 3 (a) | III | Commercial Use |
| (b) | III | Mostly Commercial |
| 4 | III | 16-20 (part)<br>31-40 (existing part) |
| 5 | II & III | 6-10 (part)<br>11-15 (part)<br>16-20 (part) |
| 6 (a) | II & III | 6-10 (part)<br>21-30 (existing part) |
| (b) | III | 6-10<br>16-20 |
| (c) | III | 6-10 (part)<br>16-20 (part)<br>21-30 (part) |
| 7 (a) | II | 6-10 (part)<br>16-20 (part) |
| (b) | II | 6-10 (part)<br>21-30 (part) |
| 8 (a) | II & III | 11-15 (part)<br>21-30 (part) |
| (b) | I | 1-5 (part)<br>6-10 (part) |
| (c) | II | 6-10 |
| 9 | II | 11-15 (part)<br>21-30 (part) |
| 10 (a) | II | 6-10 |
| (b) | II | 16-20 |
| (c) | II | 6-10 (part)<br>11-15 (part)<br>21-30 (part) |
| 11 (a) | II | 6-10 |
| (b) | II | 6-10 |
| (c) | I | 6-10 (part) |
| (d) | I | 1-5 (part)<br>6-10 (part)<br>16-20 (part) |
| 12 | II | 6-10 (part)<br>21-30 (part) |
| 13 (a) | II | 6-10 |
| (b) | II & III | 6-10 (part)<br>16-20 (part) |
| 14 | I & II | 6-10 |

[1] See Figure 2 for location of each sub-area.

[2] Dwelling Units per net acre.

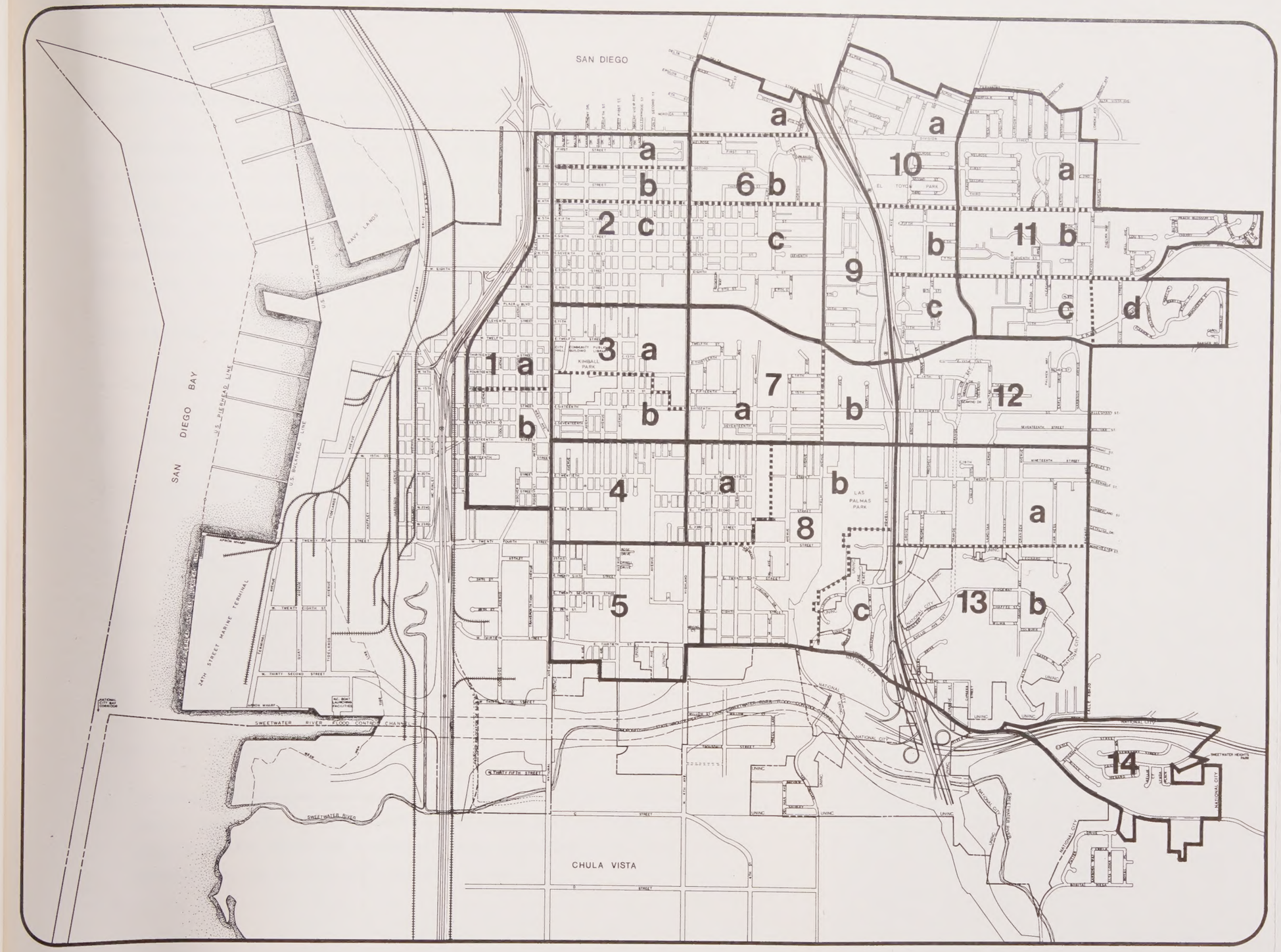


FIGURE 2

## RESIDENTIAL SERVICE AREAS

4 SERVICE AREA

—— SERVICE AREA BOUNDARY

b SUB AREA

····· SUB AREA BOUNDARY

NATIONAL CITY, CALIFORNIA

GENERAL PLAN REVISION PROGRAM 1973-74

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description of the types of treatment and the projected densities for each sub-area.

Conservation of Existing Residential Neighborhoods

The conservation and upgrading of National City neighborhoods will require a comprehensive program to restore the vitality of National City as a place to live, through improvement of each residential neighborhood according to its needs. Coordination of public actions with private rehabilitation efforts of property owners will be essential to the success of the program since both contribute equally to stabilizing property values.

Conservation activities should include:

- Improvement of public rights-of-way to standard condition where necessary.
- Street tree planting program.
- Provision of recreation areas, open spaces, child care centers, and schools, (where needed) to meet modern residential standards.
- Diversion of through-traffic from neighborhood street.

Rehabilitation of Existing Housing

A publicly sponsored program to assist private property owners in the improvement of their homes is required for plan implementation. The following outline of steps necessary to establish and carry out this program suggests a sequence of necessary actions:

1. Establish a citywide housing rehabilitation program using an interdepartmental task force of city staff to define treatment of areas and review rehabilitation standards developed by the Department of Building and Housing for the recommended treatment types.

2. Provide supporting city and/or county staff for rehabilitation and conservation programs in process, possibly located in a service center. Staff skills should include persons knowledgeable in building codes, practices and costs; social work skills to assist owners in economic and social problems impeding successful rehabilitation and to provide relocation services where needed; and architectural and planning skills to detail improvement needs as the program progresses.

3. Initiate necessary programs to assist owners in need of financial aid

**The proposed "Home Improvement Loan Program" within the Center City Project Area and outside of the project west of National Avenue, between 8th and 22nd Streets, is consistent with the General Plan.**

**GP-1-76 Resolution No. 12,000 March 23, 1976**

in the program; and to utilize other means such as those provided through the State Residential Rehabilitation Act of 1973.

4. Develop a program of supportive services and aids that should include but not be limited to the following:
   - Instruction programs to assist home owners in learning good techniques for such jobs as window sash repair or exterior painting.
   - With local building union approval, establish a program using supervised youth in vocational school programs to assist hardship cases, particularly elderly home owners, who would otherwise be unable to carry out property improvement.
   - Establish tool banks.
   - Establish lists of reliable contractors to insure competent work at reasonable cost. Local home builder's associations should be called upon to assist in list preparation.
   - Encourage neighbors in residential areas to contract jointly for such jobs as reroofing as a means of cutting costs.

New Development

Since most residential areas of National City contain vacant parcels ranging in size from single lots to areas of up to an acre, careful regulation of "in-fill" homes or apartments is recommended. Necessary controls can be

obtained by coordinated use of zoning and building laws, the Decision Making System/Impact Assessment Process and design review as proposed in the General Plan and Implementation Program, to insure that new buildings enhance rather than detract from the existing neighborhoods. As citywide neighborhood conservation and housing rehabilitation programs progress and additional vacant land becomes available (where dilapidated structures have been removed), these laws and review processes should be refined to reflect improved understanding of what constitutes desirable and appropriate infilling for National City's residential districts.

Multi-family housing developments of moderate to high densities should be limited to those locations in which higher density ranges are specifically permitted in the General Plan. Predominantly single family and duplex housing sub-areas should be protected by re-zoning these residential areas to conform to the General Plan's proposals.

Overcrowding

Undertake the following programs aimed at improving the most severe conditions of overcrowding:

- Establish a central relocation agency to assist National City families in finding homes suitable to family size and budget. This community resource, originally established in many cities as a part of redevelopment or code enforcement programs, has been found to be of continuing value as a day-to-day public service for low-income residents.
- Establish regulations requiring higher minimum floor areas for all new housing units intended for family occupancy. All new single family homes in any residential area should be required to contain 1,000 square feet of floor area as a minimum.
- Undertake a study of single-family areas of the city where overcrowding is severe to determine if additions and enlargements to small homes are possible and reasonable without detriment to the health and safety concerns of zoning ordinance provisions regarding coverage.

Low Cost Housing

1. Study the feasibility of establishing a Public Housing Authority and instituting a "Section 23" type program which would utilize existing rental units for households in need of housing assistance.

2. Construct housing for the elderly as presently planned and continue to encourage this housing type.

Specific Plan

Develop "Specific Plans" as defined and permitted by the State to refine General Plan proposals in the following areas:

- Residential neighborhoods disrupted by Route I-805 construction. (Areas 9 and 10)
- Residential neighborhoods requiring replanning to provide for coherent patterns of use. (Area 5 as well as other areas)

## CHAPTER VIII: ENVIRONMENTAL MANAGEMENT

The Environmental Management section of the National City General Plan contains the following chapters required by the California Government Code (Title 7, Chapter 3): Conservation, Open Space, Seismic Safety, and portions of Safety.* For clarity and ease of understanding, Environmental Management has been separated into three parts: VIII A - Conservation; VIII B - Open Space; and VIII C - Seismic Safety. Thus each part, although an integral component of the entire Environmental Management section, may be evaluated and adopted individually, and in the future amended or updated individually as necessary.

In order to maintain and enhance the quality of life and health in the National City Planning Area, the following environmental management policies are adopted:

- Preserve open space, in order to conserve natural resources, including but not limited to significant flora and fauna, wildlife habitats, areas for ecologic and scientific, scenic and aesthetic topography and landforms, banks of rivers and reservoirs, watershed lands, mineral resources, and areas required for the recharge of ground water.

- Preserve or create open space areas to provide adequate outdoor recreation areas including but not limited to neighborhood parks, areas of significant historic and cultural value, areas providing public access to reservoirs, rivers and San Diego Bay, and landscaped areas.

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*The sections on Open Space and Conservation are based largely on the Open Space and Conservation Element, adopted by the National City Council through Resolution Number 11175, September 18, 1973.

- Preserve open space to protect public health and safety, including but not limited to areas required for the protection of ground water quality, areas required for the protection and enhancement of air quality, and hazardous areas such as fault zones, unstable soils, ground failure zones, and flood plains.

# CHAPTER VIII A: ENVIRONMENTAL MANAGEMENT - CONSERVATION

The objective of this chapter on conservation is to ensure that National City " . . . recognizes the benefits which accrue from the conservation, development and utilization of natural resources." This section addresses three basic resource categories including: Geologic and Soil Conditions, Biologic Conditions, and Hydrologic and Water Quality Conditions. A general, and more complete discussion including geographically specific descriptions of geologic, soils, biologic, hydrologic, and water quality conditions is included in the Technical Report.

## GEOLOGIC AND SOIL CONDITIONS

In the past, insufficient attention has been paid to the necessity of obtaining adequate data concerning the physical environment prior to making planning decisions. Such data should include geologic and soils conditions as a basic input in making rational land use decisions, particularly regarding urban development. Failure to consider geologic and soil conditions can often result in structural damage to buildings caused by landslides, soil erosion, land subsidence, or sedimentation; other negative consequences may be the failure of on-site sewage disposal systems, the lack of suitable sources of construction materials near urban areas, and the pre-emption of prime agricultural land by urbanization.

### Geology

No detailed geologic studies have been made of the Planning Area in terms of the implications that the local geology has on land use planning. However, the general geology can be ascertained for the Planning Area from the

"Generalized Lithology and Earthquake Damage Potential Map" included in the CPO Open Space Study - Model Seismic Safety Element report. The map indicates that three general geologic units occur within the Planning Area:

1. Alluvium - unconsolidated recent deposits of clay, silt, sand and gravel, irregularly stratified and of varying thickness. It generally occurs as valley fill and stream channel deposits. Alluvium is found generally west of National Avenue and south of 30th Street, and in the Sweetwater Valley, following the course of the Sweetwater River. Alluvium is the least competent of the five generalized geologic units found in San Diego County, and is thus subject to the greatest potential for land subsidence and ground failure during earthquakes.

2. Terrace Deposits - poorly consolidated to unconsolidated aggregates of silt, sand and gravel. The terrace deposits are generally thin (less than 100 feet thick) and represent older accumulation of unconsolidated materials. In areas where the aggregates are poorly consolidated, the greatest potential exists for ground failure during earthquakes. Within the Planning Area, terrace deposits occur only east of National Avenue and approximately west of I-805, and in scattered pockets in the Sweetwater Valley on the north side of the Sweetwater River.

3. Tertiary rocks - fragmented sedimentary rocks consisting of a mixture of sandstone, shale and conglomerate which is poorly to well-cemented. These younger sedimentary rocks, although generally resistant to ground failure during earthquakes, do contain several rock formations that are especially susceptible to landsliding and which may occur in the Planning Area. In the Planning Area, tertiary rocks are found in the northeast (generally east of I-805) and in the Sweetwater Valley north of Sweetwater Road.

Soils

Different soil conditions can pose problems for future development as noted below:

1. Shrink-swell behavior - In general, a high clay content means that the

soil will shrink and swell significantly. Such expansive soils are a major problem in the construction of roads, homes and other types of urban structures.

2. Erodibility - The erosion of soil by water can have significant effects on the urbanized and urbanizing portions of the Planning Area. Sediments from erosion from construction sites for housing, industry and roads can fill essential water supply reservoirs, harbors, estuaries, bays and storm drains, and choke streams and rivers. In addition, erosion removes valuable soil from agricultural land, gravel pit sites, roadbank cut and fill areas and stream and river banks in much greater quantities than are removed from undisturbed lands with a natural vegetative cover.

3. Run-off potential - Run-off potential is a useful indicator in estimating sedimentation, designing flood control and storm drainage facilities, and forecasting floods. In general, the presence of vegetation improves the absorption capability of soil and slows down run-off. Man-made cover, however, usually lowers the absorption capability of the soil and results in increased surface run-off.

4. On-site sewage effluent disposal limitations - The efficient disposal of sewage effluent where public sewer systems are not available* depends on the ability of the soil to absorb the effluent on a sustained basis. This requires a soil that is permeable (one that allows the effluent to percolate down through the soil at a proper rate). However, if the soil is too permeable, the effluent may penetrate down to ground water and spread contamination over a large area. In addition, sloping soils with near-surface impervious layers often emit effluent on downslopes, posing a health hazard and causing noxious odors.

Steep Slopes

Intense development pressures in the San Diego area are causing developers to look at steep lands that in the past have been rejected for development. Homes built on steep slopes are more expensive to build and maintain than

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*The entire incorporated portion of the National City Planning Area is served by public sewer systems.

homes built on more level sites, and special problems develop in locating and constructing access roads, in grading and excavation, and in landscaping and erosion control. In addition, development on steep slopes generally increases problems related to erodibility and surface run-off, and poses serious limitations for on-site sewage disposal.

Mineral Resources

In a discussion of "Loss of Mineral Resources," the Urban Geology Master Plan for California takes particular care to note that:

> In order to be conserved, significant mineral deposits must be recognized and protected ... Protection of important deposits becomes the responsibility of city and county government ... Once a mineral inventory has been completed, significant mineral deposits can be compared in value to the alternative land use options threatening them ....

Four types of mineral resources occur in the National City Planning Area (although very few suitable deposits are found within the actual city limits) - sand, gravel, decomposed granite, and salt - and all are consumed locally.

BIOLOGIC CONDITIONS

Natural flora and fauna habitats in much of the Planning Area have been degraded or eliminated by extensive grading, landfill and urbanization. The remaining areas exist along the Sweetwater River (much of which is to be included in the proposed Sweetwater Regional Park), and in the Paradise Creek Marsh area. Other semi-natural habitats can be found in the several significant canyons and ravines found in different parts of National City (such as the large canyon just south of Rachael Avenue and east of Lincoln Acres).

Local plant communities have been largely replaced by introduced species, and animal communities have declined as urbanization has occurred. Conservation groups report that there are no unique habitats or endangered species

of flora or fauna in the flood plain east of I-5. One report* has indicated that, with a few possible exceptions in the Paradise Creek Marsh area, there are no rare or endangered species of flora or fauna in the Planning Area.

## HYDROLOGIC AND WATER QUALITY CONDITIONS

### Water Supply

National City has three sources of water supply: impounded run-off from the Sweetwater River watershed, imported water from the Colorado River stored in the Sweetwater Reservoir, and water pumped into the system from two wells in El Toyon Park. Approximately 80% of the water used in National City is imported. All of the water facilities in National City are owned by the California American Water Company but will be turned over to the Sweetwater Authority after the completion of condemnation proceedings.

### Water Quality

In the lower reaches of the Sweetwater Valley ground water quality has declined as increased population density has occurred. Increasing domestic demands for water have resulted in subsurface salt water intrusion into previous fresh water supplies. This has had some effect on wells in and around National City, but since the great majority of the area's water supply is imported this presents a minor problem.

### Flooding Potential

The coastal areas of San Diego County are subject to sudden and severe floods. The topography, geologic features, and soils are not favorable to heavy infiltration of rainfall. The Sweetwater River flood plain lies in the southern portion of the Planning Area. The down stream portion of the flood plain, west of I-805, is the site of the proposed Sweetwater River flood control channel. This project, which is included in the General Plan, is to be

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*An Inventory of Physical and Biological Factors of Paradise Creek Marsh, National City, California, Intersea Research Corporation, October 1973.

built in conjunction with the proposed State Route 54, although both projects have been delayed pending approval of environmental impact statements. The storm flow from the larger eastern portion of the Paradise Creek watershed would also enter the flood control channel near Edgemere Avenue; the danger of flooding in the lower western portion of the Paradise Creek watershed near I-5 is considered to be negligible.

## AIR QUALITY

Because National City is part of a large metropolitan area, local air pollution levels are largely generated by regional factors rather than local factors. Present trends indicate that the levels of air quality in the San Diego region will decrease over time because the population level (with its concomitant increased use of automobiles) is steadily increasing. Thus National City is also likely to experience a continuing decrease in air quality.

The only local air quality monitoring station in the vicinity of the Planning Area is in Chula Vista, and that station only monitors the level of photochemical oxidants (commonly known as "smog"). For this particular air pollutant, the ambient air quality standard applicable in California is lower than the Federal standard. The annual summary for 1972 indicates that the Chula Vista monitoring station recorded smog pollution equalling the maximum Federal standard about 30% of the time, but equalling the maximum California standard only about 14% of the time. The 1973 data indicates a slight worsening of oxidant pollution.

It can be reasonably assumed that the great increase in local traffic in National City that will occur when I-805 and the proposed State Route 54 are completed will continue to worsen the air quality of the area.

## POLICIES AND RECOMMENDATIONS

### Steep Slopes

1. Do not permit development on steep slopes (greater than 25%) unless it is

of very low density.

2. Prepare and adopt standards for development on moderately steep slopes (15% to 25%).

3. Adopt standards for landscaping on steep slopes, and require all such slopes to be adequately landscaped to prevent soil erosion and landsliding.

Mineral Resources

4. Support County efforts to protect major mineral resource areas.

5. If the Sweetwater River flood control channel and State Route 54 are not constructed, designate the large sand and gravel deposit between National Avenue and Edgemere Boulevard on the north bank of the Sweetwater River as a "mineral resources conservation area."

Biologic Conditions

6. Support the San Diego Unified Port District plans for retention of suitable areas in the National City salt flats for open space uses such as ecologic or scientific research and for wildlife refuge.

7. Support continuing efforts to acquire Sweetwater Marsh for open space conservation prior to development of Paradise Marina.

8. Support efforts to establish a marsh environment in the Sweetwater River flood control channel to replace marshland lost if the flood control channel is constructed.

Hydrology and Water Quality

9. Recognize that Bay pollution is a potentially serious problem and continue to support the efforts of the San Diego Regional Water Quality Control Board.

10. Endorse County plans for the connection of all residential development in the upper and middle Sweetwater River drainage basin into the Metropolitan Sewer System.

11. Support the continuing efforts to resolve problems stemming from the several Federal, state and local jurisdictions regarding the proposed Sweetwater River flood control channel.

12. Support County efforts to establish improved waste water reclamation facilities for providing water for secondary uses.

Air Quality

13. Continue to endorse and support the Air Pollution Control District's strict regulation of smoke, dust, fumes and vapors in commercial and industrial developments.

14. Support CPO and County research of alternative mass transportation systems to reduce air pollution and to alleviate traffic congestion.

## CHAPTER VIII B: ENVIRONMENTAL MANAGEMENT - OPEN SPACE

Broadly defined, open space includes all areas of land and water not covered by man-made structures, and park and recreation areas (which may contain some man-made structures). This covers a wide range of land uses, with varying functions. Open spaces can be large or small, private or public, multi-purpose or single-purpose, intensively used or undeveloped. They may differ considerably in their significance for preservation, and, while governmental controls over land uses are a necessity, it certainly should not be inferred that all open space land must be purchased in order to keep it open.

This chapter considers six general types of open space for the Planning Area, including: 1) parks and recreation areas, 2) conservation areas, 3) historic sites, 4) bikeways and trails, 5) San Diego Bay, and 6) landscaping.

### PARKS AND RECREATION AREAS

The need for park and recreation areas has long been recognized in National City. Increasing effort should be expended to keep the functional use of existing parks attuned to changing recreational needs. An ongoing system of park acquisition and design and recreational program innovation should be constantly adjusted to population characteristics, land uses, and localized community and neighborhood needs.

#### Existing Parks and Recreation Areas

Kimball Park, El Toyon Park, and Las Palmas Park are the three developed public parks in National City. A fourth, Sweetwater Heights Bicentennial Park, is a

small neighborhood park planned for the extreme southeast part of the City. The National City Park and Recreation Department is currently completing master site development plans for each of the public parks.

The only other recreational facility in the City is the Sweetwater River channel boat launching ramp, which was built and is maintained by the San Diego Unified Port District. This facility also has a small picnic area and a public fishing pier.

## Proposed Park and Recreation Areas

### Sweetwater Regional Park

The County of San Diego is currently in the process of acquiring land for the proposed Sweetwater Regional Park. This park would include the most scenic natural areas of the Sweetwater Valley below the Sweetwater Reservoir and would connect with trails proposed for the flood control channel embankments to connect with the San Diego Bay waterfront and the proposed Paradise Marina. The proposed regional park will exploit recreational uses of the valley and preserve the natural beauty of the Sweetwater River and vegetation of the middle valley area.

In 1971, the National City Council approved by resolution the basic concepts as outlined in the initial County plan with the single exception of asking that the Bonita Golf Course be designated for conversion into a regional shopping center rather than for inclusion in the regional park. The City Council has also endorsed the Sweetwater Regional Park Plan of January 1972 as included in the Implementation Study, San Diego County Regional Parks prepared by the County of San Diego.

### Paradise Marina

The City of National City is currently considering a "feasibility study" for a marina facility to be located adjacent to the proposed Sweetwater River flood control channel and the Paradise Creek Marsh, just west of I-5.*

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*See Paradise Marina Feasibility Study and Plan, City of National City (Preliminary), April 1973.

The facility would be in the immediate vicinity of the existing Port District boat-launching ramp and fishing pier, and would be about 71 acres in size, including an adjacent tourist-commercial area.

The principal feature of the proposed marina site is that it is the only National City area that can provide public access to San Diego Bay. This access would be via the Sweetwater River flood control channel. The long-range environmental consequences of altering the Paradise Creek Marsh will have to be weighed against the recognized need and demand for a marina-campground oriented recreational facility.

Guidelines for City Park and Recreation Areas

The Preliminary Open Space and Conservation Element prepared by the National City Planning Department in June 1973, and later adopted by the City, indicates (on page 34) that ". . . the adopted standard is a minimum of 1.4 acres of parkland for every 1,000 persons." This standard is somewhat lower than the standards employed by most other cities in San Diego County. In addition, the actual existing amount of parkland per 1,000 population is about one-half that of Chula Vista's, and much less than some other South Bay communities. It can reasonably be concluded, therefore, that National City does have a deficiency of parkland given its possible future size and population.

The Open Space and Conservation Element stressed the great need for park lands at the neighborhood level. Although National City is in proximity to numerous and varied regional and sub-regional parkland resources (Balboa Park, Silver Strand, Anza-Borrego Desert State Park, Mission Bay, etc.), none of those resources can substitute for the advantages, usefulness, and desirability of the neighborhood park or open space area.

Ideally, a neighborhood park should be provided for any area of the city containing a sufficient number of residents to justify the development of recreational facilities. (A neighborhood open space area should be provided where the conservation of natural environmental conditions would be preferable to allowing development to occur and may not necessarily be part of or in proximity to a neighborhood park which is recreation-oriented.)

The neighborhood park should serve primarily children of elementary school age and should be a focal point for their non-home-centered leisure time activities. In this respect, the elementary school should serve, when appropriate, as the center of interest for the neighborhood park. In addition, but on a more limited basis, the neighborhood park should serve teenage, adult, senior citizen and organizational groups whose activities are confined to neighborhood residents.

The development of neighborhood parks will, of course, require a concept or definition of just what a "neighborhood" is.* In general, for purposes of determining neighborhood park needs and locations, a "neighborhood" can be considered to be an area served by elementary school facilities. The neighborhood park should have a maximum service population of about 3,000 people, and should be within walking distance of residents of the neighborhood. The term "walking distance" implies at the very most a half-mile, which is about the farthest distance that a five- or six-year old child or senior citizen can reasonably be expected to walk to a neighborhood park. In addition, "walking distance" implies not having to cross major city arterials, such as Eighth Street, Highland Avenue, and National Avenue, which present significant dangers to the young children who would be heavy users of the neighborhood park.

Because the elementary school is the natural focal point for the activities of elementary school-age children, the development of joint elementary school-neighborhood parks would allow both school and park to serve at their fullest potential. The recreational facilities used by the school (basketball courts, tennis courts, etc.) would of course be unavailable for the adult population during school hours. However, the adult population has mobility, and weekday recreational needs can be provided by city-wide and community parks - Kimball, El Toyon, and Las Palmas - and by regional parks such as the proposed Sweetwater Regional Park. After-school weekday and weekend neighborhood recreation could focus on school-park sites because no conflict of use would arise during those time periods.

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*Neighborhood Park Districts, as included in the Preliminary Open Space and Conservation Element, are presented in Figure 3.

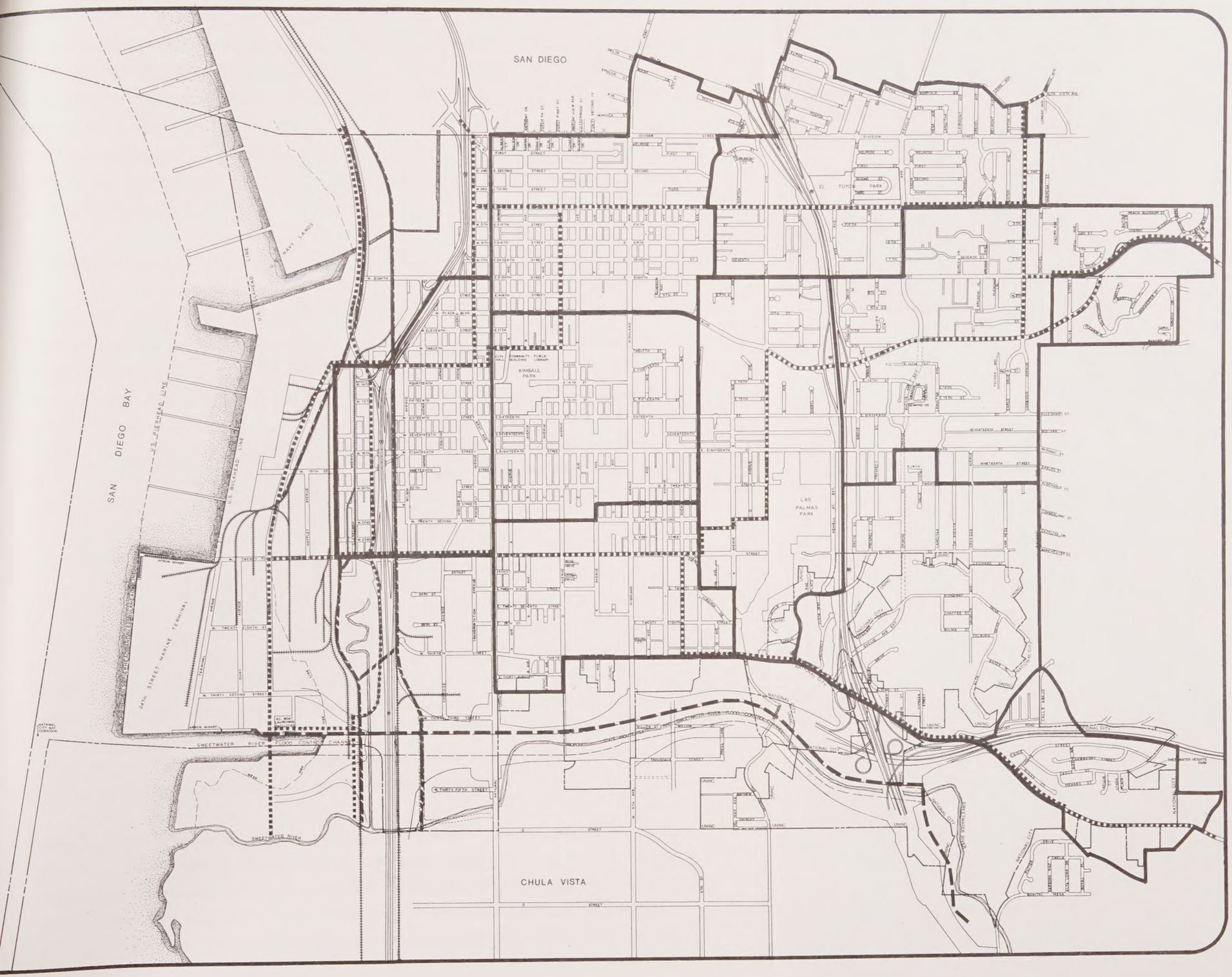


FIGURE 3

## OPEN SPACE RECREATION FACTORS

- NEIGHBORHOOD PARK DISTRICT BOUNDARY
- BIKEWAY
- EQUESTRIAN TRAIL
- UTILITY & RAILROAD RIGHT-OF-WAY

# NATIONAL CITY, CALIFORNIA

# GENERAL PLAN REVISION PROGRAM 1973-74

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Because neighborhood park locations should be strongly related to their accessibility to their service population, park standards based on acres per 1,000 population or similar ratios are not very useful in measuring the adequacy of existing or proposed neighborhood parks. More relevant would be a general guideline indicating the type of neighborhood park facilities that should be provided. (See Appendix B for a list of the neighborhood parks included on the General Plan Map and the recreation facilities suggested for each park.)

## CONSERVATION AREAS

Whereas the chief purpose of parks and recreation areas is to provide designated sites for recreational activities of a generally active nature, conservation areas provide first an opportunity to conserve natural values, and second provide areas for passive recreation such as hiking and picnicking. Six general types of conservation areas have been considered, including: 1) steep slopes, 2) significant vegetation, 3) scenic views and areas of aesthetic quality, 4) undeveloped areas to be conserved, and 5) marshland. The conservation areas are shown as "Open Space" on the General Plan Map.

### Steep Slopes

The potential hazards posed by steep slopes in many parts of the Planning Area are discussed in Chapter VIII A. Because no detailed geologic studies have been made to date, it is not possible to accurately determine the effects of grading, drainage alterations and vegetative cover removal on specific steep slope areas (25% and greater). In general, however, such steep slope areas should not be developed until a definitive detailed geologic study for the Planning Area enables a proper evaluation of such areas and meaningful land use criteria and ordinances are prepared and adopted.

Where steep slope areas are of considerable size or where large parcels are mostly within a 25% or greater slope category, such areas have been designated for preservation as conservation areas. In many instances, these steep slope areas may also have other open space values such as aesthetic qualities, scenic views, and potential seismic or other natural hazards. This is not

to imply that other steep slope areas should not also be conserved. Such other areas, however, are much smaller in extent and would best be handled in the normal development proposal review process.

Significant Vegetation

There are two small areas with vegetation of special interest in National City. One of these is an approximately one-acre area on the east side of "N" Avenue, just north of 26th Street. The "Captain's Tree" (a rubber tree), one of the oldest and probably the largest tree in National City, is found in this small open space area. The other area is a very attractive eucalyptus grove of approximately one acre on the south side of East 24th Street between Highland Avenue and "I" Avenue.

Scenic Views and Areas of Aesthetic Quality

There are numerous scenic and aesthetic natural areas in National City and those of the greatest significance have been designated as conservation areas in the General Plan. Most of these areas are canyons or ravines. They are frequently of considerable size and would provide valuable natural areas to contrast with the urban environment and also provide areas for passive recreation such as hiking and biking trails. In almost all cases, such natural areas are the rear portions of deep lots which are already improved, and the conservation of the canyons and ravines might simply entail dedication or acquisition of easements.

Undeveloped Areas to be Conserved

There are many unimproved areas in National City which, although not having any significant natural scenic or aesthetic qualities, could be greatly enhanced within the context of the city-wide landscape implementation program. These areas are of three basic types: 1) existing rights-of-way, 2) unimproved city-owned parcels, and 3) steep graded or unimproved portions of improved parcels.

Existing rights-of-way could be used to increase the accessibility of existing

and proposed parks and recreation areas and also provide opportunities for biking and hiking trails. Because such rights-of-way are already public, no expenditure of funds would be necessary to acquire them.

Unimproved city-owned parcels could be landscaped in a manner which would provide man-made "natural" areas in neighborhoods where there are no actual existing natural areas. Again, these areas are already publicly owned, and no public expenditures would be required for their acquisition.

The appearance of many steeply-graded and unimproved portions of improved parcels throughout National City could be beautified if such areas were included in National City's landscape implementation program. In certain areas, such as the south and west parts of Lincoln Acres, a greenbelt could be created by such a landscaping program.

The most significant steeply-graded and unimproved portions of improved parcel areas have been designated for conservation in the General Plan. These areas are, for the most part, privately owned, but outright acquisition may not be necessary. Dedication of right-of-way or landscaping easements might be achieved in return for some kind of compensation; the dedication of easements would probably result in reduced assessed values and therefore reduced property taxes for the property owners.

Marshland

The conservation of Paradise Creek Marsh is dependent of the future of the proposed Paradise Marina. The final development plan that is adopted for the Marina will hopefully set aside at least a small portion of the marsh for aesthetic values. In any case, if the proposed flood control channel is eventually approved and the Route 54/I-5 interchange is built, the Department of Transportation has already designated certain lands to be dedicated as open space to mitigate the effects of the interchange on the Paradise Creek Marsh. These lands are located within the Paradise Marina project boundary limits as shown in the proposed site plan and have been designated as an open space area in the General Plan on the assumption that the interchange will eventually be completed.

HISTORIC SITES

Over sixty buildings of historic interest have been identified in National City, of which only a small number (about twenty) have been kept in good repair by private owners.* Most of the buildings have been neglected and face future demolition. A priority list of those seven remaining historic structures considered worthy of preserving has been prepared by the National City Historical Committee. (The priority list is included in Appendix C.)

The considerable cost of rebuilding those historic structures which have deteriorated has, in the past, largely prohibited acquisition. Valuable historic landmarks are thus often destroyed simply because funds cannot be raised to save them. Recently, a referendum proposing to permit the City General Funds to be used to acquire historical sites was turned down by National City voters, so funding is still a problem.

Two possible solutions to preserving historic buildings without outright acquisition by using public funds are those of reuse and historic zone designation. Reuse involves the conversion of the historic building for a different use while still maintaining the character of the original building. An example of such reuse recently undertaken in National City is the conversion of the old Santa Fe depot into a restaurant.

The California enabling legislation for the creation of historic zones may be found in Chapter 1442, Statutes of 1972; Government Code, section 50028, Public Resources Code, section 5031; and Revenue and Taxation Code, section 1161, 1162. The historic zone involves a contract between the City and the property owner to restrict the property owner to uses consistent with the characteristics of historical significance of the building for a minimum period of 20 years. In a sense, the technique is similar to the Williamson Act for conserving valuable agricultural land. The contract may result from either the owner approaching the City and asking for a historic zone designation, or by the City applying the designation at its own prerogative. In any case, a qualified registered historical property, as defined by the legislation,

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*For a list of the historic structures see the previous National City General Plan (prepared in 1966), pages 11-17.

includes (in addition to being a California registered historical landmark) the following:

- a first, last, only or most significant historical property of its type in the region;
- a property associated with an individual or group having a profound influence on the history of California;
- a property which is a prototype or outstanding example of a period, style, architectural movement, etc.

In order to establish an historic zone for a historic structure, it first must be designated as a registered California historical landmark. The only such registered historical landmark in National City is the "Brick Row" apartment complex which is envisioned at the present time as a major feature in "Heritage Square," the future historic area near downtown National City. Hopefully, further efforts to include other significant historic sites in National City on the State historical landmark register will be successful.

BIKEWAYS AND TRAILS

In April 1972, National City adopted A Plan for Bicycle Ways and Trails in National City, California.* This plan described the implementation of a bikeway system connecting neighboring communities with each other and at the same time providing an intra-city recreational bikeway system. The linkage of schools and recreational areas was strongly emphasized. Route selection was generally restricted to the major collector and arterial streets.

The plan also recognized the desire for a "Bay Route" bikeway that would traverse the entire Bay shore and connect with the proposed Sweetwater Regional Park via the proposed flood control channel. Tentative plans have designated Tidelands Avenue and Harbor Drive as the most feasible streets for National City's portion of such a Bay Route. However, the use of McKinley Avenue instead of Tidelands Avenue has been recently explored and a bikeway estimate for this location is currently being prepared.

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*The Bikeways and Equestrian Trails included in this earlier report are shown on Figure 3.

The major problem in developing bikeways is ensuring the safety of the bicyclist. Bike lanes in streets separated from auto traffic by only a painted line may provide a false sense of security to the bicyclist and are not appropriate for use by young children who learn to ride in relative safety in the vicinity of their home.

One solution to the problem is to designate sidewalks for bicyclists, but this would necessitate wider sidewalks than those existing on the major collectors and arterials in National City. A recently-released bikeway criteria report prepared by the California State Department of Transportation recommends that bikeways be separated from the street by a minimum of thirty feet. This standard would be difficult to achieve in National City, given the existing street-sidewalk proportions and sizes. It would appear that a successful and safe bikeway system in National City will be dependent upon the implementation of a street improvement program in conjunction with a landscaping implementation program. Hopefully, in the planning stage, street redesign and improvement can integrate bikeways, landscaping, pedestrian rights-of-way, sitting areas, street furniture, and parking areas in a unified and aesthetically pleasing urban design concept.

The layout and spacing of public open space areas in National City has precluded the provision of a hiking and equestrian trail system. The County General Plan and the proposed Sweetwater Regional Park master site plan both propose the creation of a major hiking-equestrian trail loop system that would circumscribe the Sweetwater Reservoir, continue down-valley through the regional park, and finally extend to San Diego Bay via rights-of-way along the proposed flood control channel.

In addition to this major route, branches may be developed in the various open space conservation areas designated in the General Plan. The extensive proposed open space area south and west of Lincoln Acres would be an ideal location for such a branch. Also, the use of existing public rights-of-way would be ideal, and several have been designated as open space areas on the General Plan.

Three special types of rights-of-way which would be feasible and practical for hiking and equestrian trails are electrical transmission line rights-of-way, railroad easements, and highway and freeway easements.* Examples of all three occur in the Planning Area and should be thoroughly explored by the City for their potential for hiking and equestrian trail development.

LANDSCAPING

Landscaping is becoming an issue of increasing importance in National City. Past neglect of this visual resource has prompted citizens to re-evaluate land-use priorities. The City Council has responded by adopting several zoning ordinances that specify minimum landscape area requirements for future industrial, commercial, and multi-residential zones. In addition, the National City Chamber of Commerce has endorsed an "Eight-Point Beautification Program" outlining an orderly approach to encourage community participation in an overall beautification program. This program, adopted by the Planning Commission and City Council in February 1972, incorporated the following action program:

1. Concentrated city enforcement of existing landscape requirements.
2. Preparation and adoption of landscape development and maintenance standards.
3. Preparation and adoption of parkway landscaping and maintenance regulations.
4. Application for Federal grant funds to prepare a street beautification plan.
5. Preparation of a Tree and Street Beautification Plan.
6. Encourage the Street Tree Committee to promote improvement projects.
7. Work with the Chamber of Commerce to promote voluntary landscaping improvements.
8. Initiate a City-financed tree planting program.

Work has been completed or is presently underway on all above eight items, a Street Tree and Parkway Study has been prepared to help develop a local

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*Utility and railroad rights-of-way are shown on Figure 3.

Tree and Street Beautification Plan, and a Landscape Implementation Program has been prepared to direct and coordinate actions, progress, and budget and personnel requirements.

SAN DIEGO BAY

San Diego Bay is a major resource which attracts many people to its shoreline, either for active recreation or for visual enjoyment. The protection and enhancement of the Bay's amenities is necessary to preserve the San Diego region's sense of place. The United States Navy controls about two-thirds of National City's bayfront lands. The remainder is under the jurisdiction of the San Diego Unified Port District, and is in industrial use; thus, public access to the Bay is inadequate in National City.

POLICIES

Park and Recreation Areas

1. Investigate means of implementing a marina facility as soon as possible in conjunction with the Sweetwater River flood control channel to provide an opportunity for public recreational access to San Diego Bay.

2. Continue to support County efforts to establish the Sweetwater Regional Park.

3. Establish more neighborhood parks, emphasizing ease of access, joint school-park development where possible, and ease of maintenance.

4. Adopt standards for neighborhood, community, and city parks, including desired types of facilities and general acreage requirements.

5. Prepare master site plans for all existing and proposed park and recreation areas.

6. Provide for after-hours use of school recreational facilities as an integral part of the neighborhood recreational program.

7. Utilize the park fee ordinance to obtain funds for park and recreational areas in city neighborhoods that are recreation-deficient.

8. Encourage and, if necessary, require the inclusion of mini-parks in future planned unit development projects.

Conservation Areas

9. Investigate means of protecting residential views into the proposed Sweetwater Regional Park.

10. Continue community efforts to complete the maximum amount of undergrounding of power and telephone lines.

11. Prepare specific plans for open space uses along the proposed Sweetwater River flood control channel and proposed State Route 54.

12. Discourage filling or dredging of San Diego Bay or salt marshes in order to retain the greatest amount of open water area and natural habitat as possible, except where the projects are recreational and marina facilities which increse public access.

13. Encourage increased public access to all areas of the Bay including industrial and shipping areas. Facilities should provide visual access to waterfront maritime activities, but be sufficiently removed to prevent conflict or interference with such activities.

14. Investigate the possibility of interim use of land owned but not presently utilized by the U.S. Navy for public recreation purposes.

15. Support plans for the proposed Sweetwater Regional Park from the Sweetwater Reservoir to San Diego Bay. Such plans should include bicycle, hiking and equestrian trails and scenic easements along the proposed Sweetwater River flood control channel.

16. Conserve areas of significant vegetation in National City such as the "Captain's Tree."

Historic Sites

17. Determine a final priority list for those historical sites most worthy of preservation and submit such a list to the State for consideration as registered California historical landmarks.

18. Establish an "historical zone" for all historic sites designated as a registered California historical landmark.

19. Adopt regulations protecting historic sites designated in the General Plan from demolition, and prior to a proposed demolition, require that opportunities be provided for acquisition by an appropriate public or private organization.

20. Encourage the private "reuse" of historic buildings as one means of historic preservation. Such reuse should attempt to preserve the original architectural themes and integrity of the structure.

21. Prepare a specific plan for the "Heritage Square" concept. This plan should consider locating the seven historic homes listed in the Appendix C, in "Heritage Square."

Bikeways and Trails

22. Acquire open space areas in the City through easements, dedications or purchase, if necessary, to be used for bikeways and trails.

23. Continue to support efforts to establish a bicycle route around San Diego Bay. Develop a specific plan and implementation methods for that portion of the "Bay-Route" in National City.

24. In addition to conservation areas acquired for bicycle routes, designate selected sidewalks and consider sidewalk ramps at intersections and wider sidewalks in future street improvement programs to accommodate both pedestrians and bicyclists.

25. Encourage and support bicycle, equestrian, and hiking trails from the proposed Sweetwater Regional Park along the proposed Sweetwater River flood control channel to San Diego Bay.

26. Encourage and support the use of utility, railroad and other easements and rights-of-way for open space uses, including trails, parks and recreation areas, and conservation areas.

27. Separate hiking and bicycling trails from automobile traffic wherever possible. It is especially important that adequate provision be made for pedestrian and bicycle movement at freeway grade separations and interchanges affecting the local street system.

Landscaping

28. Promote a program of extensive landscaping throughout the City.

29. Investigate methods of encouraging public participation in the Park and Recreation Department's Street Tree Plan.

30. Establish a City-owned "tree farm" to partially alleviate the high cost of street tree planting.

31. Establish a program for encouraging both tree preservation and tree planting on public and private property.

32. Continue to support the Eight-Point Beautification Program adopted in 1972.

33. Continue to support the Landscape Implementation Program.

34. Concentrate attention on the aesthetic aspects of the community's image by encouraging improved design and maintenance of public and private properties.

35. Construct and landscape special entryways to National City on major streets.

## CHAPTER VIII C: ENVIRONMENTAL MANAGEMENT - SEISMIC SAFETY

Past earthquake events throughout the San Diego Region have been well documented as far back as 1769. Although this recorded activity has been located mainly in the eastern portion of the county, the potential for future earthquake events and possible damage in the urbanized western portion is significant and must be recognized.

Seismic activity takes its toll in terms of the direct or indirect loss of human life and property, and in the resulting economic and social dislocations. The seriousness of seismic risk to public safety and potential losses or damage to property is a function not only of localized seismic conditions, but also of the local public awareness of the seismic hazards present, and the effectiveness of the mitigation policies and practices adopted to reduce the risks resulting from those hazards.

The Seismic Safety Chapter* is not the major determinant of the pattern of land uses indicated in the General Plan; such designations reflect the economic, social, and environmental conditions specific to the National City Planning Area. However, the presence, location, and risk level of seismic hazards should play a major role in outlining general land use policies in the Planning Area and in structuring the framework of the procedures to be followed at the local level in collecting and evaluating seismic hazard data.

### EXISTING SEISMIC HAZARDS

A seismic hazard is a potential or existing source of seismically-induced

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*This chapter also addresses the major topics of the "Safety Element" as required by Government Code Section 65302.1.

danger for injury or damage to man and/or property. This potential source of danger can be manifested by faulting or surface rupture, ground shaking, ground failure, and/or seismically-triggered flooding. A substantial amount of basic geologic, soil, hydrologic, and seismic data and their interpretation is needed in order to properly evaluate the hazards and risks posed by potential seismic sources of danger in the Planning Area. Although some of these data are available at the present, they are only of limited scope and of very general nature. The lack of adequate data will continue to be the most significant problem in developing seismic safety guidelines for land use planning in the Planning Area. Nevertheless, National City should recognize the fact that seismic and geologic hazards exist and that a policy framework should be established to minimize the effects of these hazards on the community. Such a policy framework is presented in the Policies and Recommendations section of this Chapter. The City should also support a policy that structural standards will be used in building construction adequate to satisfy the risks posed by existing or potential seismic hazards and should initiate a program to reduce the risk posed by existing unsafe structures.

The present Seismic Safety Chapter should be augmented with information which might be developed by regional investigations. As much additional information as possible should be developed from data required of development proponents through the Environmental Impact Review and development approval process.

Based on the data available at the present time, a description of the seismic hazards known and likely to be present in the Planning Area is given below.

Faulting and Surface Rupture

Surface rupture occurs during an earthquake when fault displacement extends upward from depths and intersects the ground surface; however, this does not occur every time a fault moves. Although there is only one documented instance of surface rupture in San Diego County, there are other faults in the county which, on the basis of epicenter data and other geologic information, are considered to be active, and therefore, potential sources of surface rupture.

The Rose Canyon fault zone is one such potential source of danger. This fault zone parallels the Pacific Coastline north of National City and is generally considered to be a possible southeasterly extension of the Newport-Inglewood fault zone that was the source of the damaging 1933 Long Beach earthquake. For general regional hazard evaluation purposes, the Sweetwater and La Nacion faults - both of which skirt and in places pass through the Planning Area - are considered to be part of the Rose Canyon fault zone. Both the Sweetwater and La Nacion faults are possibly of critical importance because they traverse areas which are presently urbanized as well as areas in the path of future urban expansion.

The most detailed investigations to date of the Sweetwater and La Nacion faults have been made by the firm of Woodward-Gizienski and Associates (Engineering Geologists in San Diego). The approximate locations of the two faults are indicated in Figure 4.* The La Nacion fault system should be considered a potentially active, if not active, fault since there is evidence that the fault has been offset within the last 11,000 years. The Woodward-Gizienski work indicates that the La Nacion fault passes through and out of the Planning Area just to the west of the Chula Vista Golf Course, then cuts through the Paradise Hills area east of Sea Breeze Drive, and then skirts the extreme northeast part of the Planning Area. They have also indicated that the inferred location of the Sweetwater fault roughly parallels the La Nacion fault about one mile to the west, passing through the Planning Area in the Bonita Mesa area, running north just east of Rachael Avenue, and then veering to the northwest passing through National City to the east of the San Diego Academy and then exiting the Planning Area in the vicinity of the intersection of Euclid Avenue and Cervantes Avenue. The Sweetwater fault is not considered to be as potentially active as is the La Nacion.

Ground Shaking

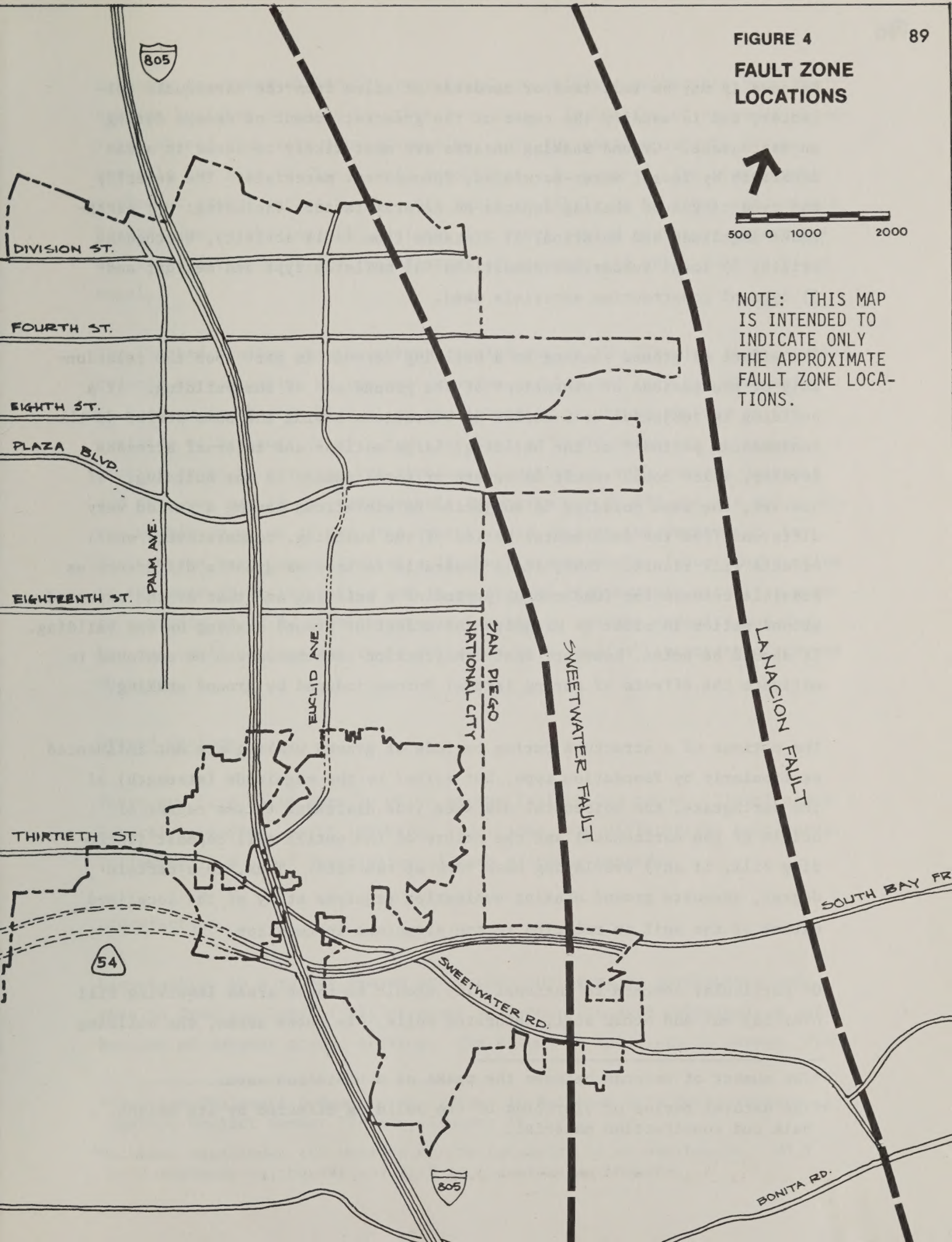
Ground shaking is the oscillation or vibration of earth materials resulting from an earthquake. It is the most commonly experienced earthquake phenomenon

*Figure 4 is based on the CPO Model Seismic Safety Element Fault and Epicenter Map (February 1974). The CPO map was based, in turn, upon investigations performed by Woodward-Gizienski and Associates.

**The California Division of Mines and Geology Special Report 123 entitled "Character and Recency of Faulting, San Diego Metropolitan Area, California" is hereby added to the Seismic Safety Element by reference.**

FIGURE 4

**FAULT ZONE LOCATIONS**




NOTE: THIS MAP IS INTENDED TO INDICATE ONLY THE APPROXIMATE FAULT ZONE LOCATIONS.

because it may be felt tens or hundreds of miles from the earthquake epicenter, and is usually the cause of the greatest amount of damage during an earthquake. Ground shaking hazards are most likely to occur in areas underlain by loose, water-saturated, incompetent materials. The severity and type of ground shaking depends on several factors including: 1) earthquake magnitude and duration; 2) distance from fault activity, earthquake origin; 3) local subsurface conditions; 4) building type and design; and 5) type of construction materials used.

The effect of ground shaking on a building depends in part upon the relationship of the periods of vibration* of the ground and of the building. If a building is subjected to a series of vibrations having the same period as the fundamental period** of the building, large motions and internal stresses develop, which could result in severe or total damage to the building. If however, the same building is subjected to vibrations having a period very different from the fundamental period of the building, comparatively small effects will result. Thus, it is desirable to have as great a difference as possible between the fundamental period of a building and that of the expected ground motion in order to minimize the effect of ground shaking on the building. It should be noted, however, that construction techniques can be employed to mitigate the effects of strong lateral forces induced by ground shaking.

The motions of a structure during periods of ground shaking are not influenced particularly by foundation type, but rather by the magnitude (strength) of the earthquake, the epicentral distance (the distrance to the center of origin of the earthquake) and the nature of the entire soil deposit (including fill, if any) overlaying base rock at the site. Thus, to a certain degree, adequate ground shaking evaluation requires study of the localized nature of the soil in relation to the structure in question.

Of particular concern to National City should be those areas involving fill over bay mud and other soft, saturated soils. In these areas, the building

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*The number of seconds between the peaks of a vibration wave.

**The natural period of vibration of the building affected by its height, bulk and construction material.

response to ground shaking is very likely to differ considerably from the average building response in other locations. Evaluation of proposed structures should thus take into account not only the maximum seismic forces probable but also the local soil conditions. In general, the predominant period of ground motion in the soft soils is likely to be long, and seismic hazards due to shaking will be least for short period one-story structures and large for long-period, multi-story structures, all other factors being equal.

The limited studies that have been carried out in the Planning Area - particularly an evaluation of terrace deposits and bay mud (see the discussion in Geology in Chapter VIII A) on the intensity of ground shaking on the westside of National City* - indicate that a "high" intensity of ground shaking could be expected for structures located on both terrace deposits and deep bay mud if the earthquake's intensity was M5.9** and its epicenter was within 15 miles of the area (which would include the Sweetwater, La Nacion, and Rose Canyon faults). If the Elsinore fault (about forty miles to the east of National City and in an area of high seismic activity) were to activate at M7.3, then structures located on terrace deposits and deep bay mud could be expected to be subjected to a "medium" intensity of ground shaking.

Ground Failure

There are five basic ways in which ground failure can occur: liquefaction lateral spreading, earth lurching, landslides, and differential settlement. Following is a brief description of each of these hazards:

Liquefaction

Liquefaction is a rather common occurrence during major earthquakes and results from the loss of all strength in water-saturated cohesionless soil because of intense ground shaking. The effect on buildings is severe, with

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*Woodward-Gizienski & Associates, letter to National City Redevelopment Agency, Project Number 71-142A, January 18, 1974.

**Richter magnitude; the measure of the intensity of an earthquake. M5.9 is a moderate earthquake and M7.3 is a serious earthquake.

extensive damage resulting from settling, tilting, and floating.

Scattered water well data from the largely alluvium-filled valleys in the San Diego Region (such as the Sweetwater Valley) suggest that water table levels are sufficiently deep in many areas to make the potential for liquefaction remote. However, because of the nature of the aquifer, ground water table levels may be higher than indicated by water well data. In general, it should not be concluded that ground failure may not occur due to future seismic activity. On the contrary, it is likely that there are many localized areas within the Planning Area that are underlain by unconsolidated granular deposits with high ground water tables that could liquefy during a major earthquake. The soil and ground water conditions in the low-lying coastal area and bay margin, the lower reaches of the Sweetwater River Valley, and the margin of the Sweetwater Reservoir make these likely locations where the potential hazards of liquefaction, lateral spreading, earth lurching, and differential settlement could be realized.

The Woodward-Gizienski study mentioned above* regarding the relationship between terrace deposits and bay mud and the intensity of ground shaking also evaluated the probable hazard for liquefaction. The study concluded that a M5.9 earthquake originating on the Rose Canyon, Sweetwater or La Nacion faults (within about 15 miles of National City) would pose a "high" hazard for liquefaction where there is a thick stratum of bay deposits, such as occurs in the parts of the city west of National Avenue. A M7.3 earthquake on the Elsinore fault or a M5.9 earthquake originating more than 15 miles from National City would pose "medium" and "low-medium" hazards, respectively, for liquefaction where there is a thick stratum of bay deposits.

If core borings for a proposed project indicate the presence of loose- or medium-dense saturated silt or sand strata, the City should require that an evaluation be made for liquefaction potential during periods of seismic activity. Those factors that should be given particular consideration in the evaluation of the borings are the depth of the water table, the density and strength properties of the sand or silt deposits that may be present, the presence of a free face toward which the soil mass could flow, and the

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*Letter to National City Redevelopment Agency, January 18, 1974.

maximum probable severity of earthquake ground motion.

Lateral Spreading and Earth Lurching

Lateral spreading is caused by ground shaking that triggers the movement of soils toward an unsupported surface or slope (not necessarily steep), and is most likely to be encountered where stiff surface materials are underlain by soils having a high potential for liquefaction, particularly along stream channels, railroad embankments, and flood plains. Extensive damage to buildings can result from the mass flow of land areas, particularly along waterfront areas and on soft, saturated clays. Areas adjacent to Paradise Creek, for example, might be susceptible to lateral spreading.

Earth lurching is the movement of the land at right angles to a cliff, streambank or embankment. It is a common phenomenon during earthquakes and can cause severe damage to buildings because of the formation of cracks in the ground surface. In addition, cracking is often accompanied by the ejection of ground water and the liquefaction of soil. Earth lurching can be expected in those areas where a high potential for liquefaction or differential settlement occurs.

In general, the special evaluations described above under "liquefaction" apply to both lateral spreading and earth lurching.

Landslides

Landslides are disturbed and displaced masses of soil and/or rock and can occur in any superficial deposit, even under non-seismic conditions. Landslides are most likely to occur in loosely and weakly-consolidated soils or rock mantle, on steep slopes, and in saturated earth materials. Man's alteration of the natural topography by grading, drainage changes, vegetation clearance, etc., also increases the hazard for landsliding.

Although landslides generally develop over a period of time, very rapid and abrupt movements can occur. Earthquake shocks frequently trigger landslides and even minor seismic activity can cause slope failure. For example, the

1971 San Fernando earthquake triggered over 1,000 landslides, causing extensive damage.

Although no detailed study of landslide potential in the Planning Area has been carried out, the CPO Model Seismic Safety Element indicates that no known significant landslide has occurred within the Planning Area. However, the greatest general potential for landsliding exists in those areas underlain by tertiary rocks (see the discussion on Geology in Chapter VIII A) where certain poorly-cemented rock formations occur within the more generally resistant well-cemented units. Landslide potential in these areas is further augmented by steep slopes, poor grading practices, and the lack of a good vegetative cover to bind the surface soil.

Differential Settlement

The occurrence of differential settlement has been well-documented in many major earthquakes and results from the non-uniform settlement of loose- and medium-dense granular soils during ground shaking. Differential settlement often results in serious structural damage to buildings and underground utilities.

Again, core borings would be a most helpful aid in evaluating those settlements most likely to develop during seismic activity because of a compaction of underlying foundation soils. Such settlements may vary from negligible amounts in clays to substantial amounts in loose cohesionless soils. The evaluation should include estimates of both the expected general settlement in the area, and the degree of non-uniform settlement which might be expected under the effects of earthquake shaking.

It is not possible at the present time to evaluate definitively existing ground failure hazards in the Planning Area. However, it should be noted that in the recorded history of seismic events in the San Diego region, there is no documented instance of ground failure other than that of landslides.

Seismically-Triggered Flooding

Tsunamis are long period seismic sea-waves usually caused by an underwater seismic disturbance or, less commonly, by large submarine landslides. Although such waves initially may be only one or two feet high, they increase in height significantly as they approach the coast due to frictional drag in shallower waters. Documented tsunami history reveals that the largest such seismic sea wave to reach the San Diego coastline had a run-up height of 4.6 feet (1960 Chile earthquake). Eight other tsunamis have produced waves at the City of San Diego in excess of one foot.

However, because of the particular orientation of the County coastline to the belts of active earthquake activity, and the shape and profile of the coastal ocean floor, significant damage from distant tsunamis does not appear to be a hazard, at least no more than the limited surging of water in local harbors (breaking of weak lines, some damage to floating piers, etc.)

Although there is a potential for harbor damage in San Diego Bay, the existing tsunami warning system in effect may be adequate if properly implemented to mitigate potential hazard. It should be noted that, although available information suggests that tsunamis are not likely to strike the coastal areas of the San Diego region, the past record of tsunami occurrence and effects is probably too short to be conclusive.

Another seismically-triggered flooding hazard is that of seiches. Seiches are periodic oscillations of water within restricted basins such as lakes, bays, and reservoirs. In reservoirs, such waves may overtop or break the dam, causing inundation of downstream areas. The Sweetwater Reservoir could pose such a threat and should be evaluated as to its ability to resist seismic loading and seiche activity. Recent legislation requires dam owners to file potential inundation maps with the State Office of Emergency Preparedness. (Section 8589.5, Government Code).

Seiches possibly have been generated in San Diego Bay and Sweetwater Reservoir during past seismic activity, but no written reports of such events are known.

ACCEPTABLE RISK

## The Concept of Risk

There is some risk involved in almost any human activity. The basic objective in determining "acceptable seismic risk" is to reduce to an acceptable level the probability of loss of life and property damage due to seismic activity. Since it is not possible to eliminate all risk to life and property, each community must decide what level of risk it is willing to accept. The Council on Intergovernmental Relations in their Guidelines for the Safety Element of the General Plan defines acceptable risk as follows:

> "The level of risk below which no specific action by local government is deemed to be necessary to protect life and property."

The determination of acceptable exposure to risk is applicable both to future planning decisions and also to the evaluation of risks associated with existing buildings and land uses. High risks in existing structures may be lowered to a level of acceptable risk by means of physical alteration (a structural hazard abatement program), relocation and/or demolition, or a change in use (from high to low occupancy, or from involuntary to voluntary occupancy). Whatever course of action is taken, the cost of achieving the acceptable level of risk should be commensurate with benefits gained.

It should be noted that the primary evaluation of the degree of risk associated with seismic hazards is a technical judgment of professionals based on a strictly limited amount of information concerning the physical environment. Even with a substantial amount of basic data, it is not easy to quantify technical judgment and experience into a suitable format that can readily be understood and used. Because of this, the concept of acceptable risk has not traditionally played an important role in land use planning. Generally, a structure is considered "safe" if it conforms to certain required standards and "unsafe" if it does not.

The problem involved in addressing the concept of acceptable risk is not so much a question of whether a structure or land use is "safe," but rather

"how safe." Experts are not necessarily "wrong" if their recommendations on codes, regulations and risk levels prove to be insufficient during earthquakes. In effect, they would have "lost a bet" that the acceptable level of risk was adequate to mitigate the hazard.

There are two major aspects involved in determining the level of acceptable exposure to risk. The first involves physical factors, both natural and structural. The physical concerns relating to the degree of hazard include the hazard's potential severity, its frequency of occurrence, and its geographic extent, as well as the response of the affected structures to the hazardous event. These physical constraints concerning the various hazards have been discussed earlier in this chapter. The second aspect involves the type of activity or land use which is exposed to the hazard; the community should accept lower levels of risk for certain critical and important land uses. This is discussed below.

The physical concerns involve two factors: one is the chance that a hazardous event will in fact occur, and the other factor is the chance that if the event does occur, measures taken to mitigate the hazard will be sufficient to reduce the damage to life and property to some predetermined acceptable level. Unfortunately, at present there is no available technological capability to control or reduce the actual occurrence of seismic events. Fault rupture and ground shaking cannot be prevented, but their effects can be minimized; tsunamis cannot be stopped from reaching coastal areas, but wise land use planning can reduce the exposure of life and property to the hazard.

In addition, although seismic hazards can be identified, the prediction of exactly when a given event will occur cannot be made with a significant degree of accuracy. Thus the risk of occurrence of a seismic event is not necessarily a suitable basis for determining levels of acceptable exposure to risk. In other words, it would not necessarily be "acceptable" to expose a school building with a 50-year life expenctancy to a potentially destructive seismic event with a one-in-500-years activity expectancy, because the seismic expectancy would be only theoretical and determined by past activity; the event could occur tomorrow, next year, or in hundreds of years.

Land Use and Structure Type

In establishing acceptable exposure to risk levels and policies the land uses involving the following types of structures should receive special attention:

- Structures the failure of which might be catastrophic, resulting in widespread loss of life and property damage.
- Structures for emergency services and major public utilities and transportation facilities which are vital, especially during disasters.
- Structures and land uses which entail involuntary risk.
- Structures with high occupancy.

The concepts of involuntary risk and high occupancy perhaps need further explanation. There should be an explicit differentiation between voluntary exposure to risk and involuntary exposure to risk. Certain types of buildings and land uses involve involuntary use; the individual has no choice whether or not to submit to a given level of risk. In these instances, therefore, the level of acceptable risk should be quite low. Buildings and land uses in which occupancy is involuntary include nursing homes, convalescent homes, mental hospitals, schools, jails, and similar facilities. A related factor involves the ability of the occupant to care for himself and to cope with a potentially disastrous situation. The level of acceptable exposure to risk should be quite low for structures such as hospitals and elementary schools for this reason.

There should also be an explicit differentiation between the risks associated with high occupancy buildings and low occupancy buildings. Occupancy, or occupancy load, is defined as person-hours of exposure over a specified period of time. All other factors being equal, high occupancy buildings (office buildings for example) will expose many more people to risks resulting from a given seismic event than a building with a low occupancy character (warehouse buildings, for example). Therefore, high occupancy buildings should be required to have a lower risk exposure than those of low occupancy.

Another factor which should be considered in establishing acceptable risk levels and policies is whether the risk can be avoided easily. It may not

be acceptable to the community to locate a critical facility such as a hospital in a fault zone if alternative locations exist which entail much smaller degrees of risk. However, some facilities such as major utility lines must cross active fault zones and other types of potentially hazardous areas to serve the urban area. In this case the location of the facilities should only be acceptable if certain measures are taken to mitigate the hazard or if construction techniques are employed which will ensure that damage would be minimal, and/or that alternative means of providing the service are available, at least in the short run.

Cost of Seismic Risk Mitigation

The level of acceptable exposure to risk must be reasonable in terms of the cost of its achievement. Taking action to minimize risk is always costly, and at some balancing point in the mitigation process the level of risk becomes acceptable. At this point the public is no longer willing to pay to reduce the risk further. Both direct and indirect costs are involved in minimizing seismic risk. An example of a direct cost would be efforts involved in minimizing risk of potential damage to property or loss of life. An example of indirect cost would be a decision to retain for open space a parcel of land with some potentially hazardous features, and thereby losing future economic benefit which would have resulted from the development of the land.

National City must determine its own priorities in terms of how much it is willing to spend to reduce existing and potential risks and how much it will require others to spend. Ideally, risk should be quantified in terms of dollars and lives, and compared to mitigation costs. However, because the factors involved are so complex and because the available information is limited, it appears that the best approach at present is to establish goals and policies for the regulation of new development, and for the abatement of structural hazards in existing development, based upon the acceptable risk concerns presented above.

## DISASTER PREPAREDNESS AND RESPONSE PLANNING

All local jurisdictions should prepare to minimize the destructiveness of earthquakes by appropriate land use and structural control, and by preparing for an effective reaction to an earthquake as well as other geologic hazards. The development of contingency and disaster response plans is the responsibility of local, State and Federal emergency services officials. The San Diego Office of Emergency Services carries out disaster preparedness planning for the San Diego County Emergency Services Organization of which National City and all other local jurisdictions in the county are a part. National City also has an Emergency Plan (adopted January 8, 1974), which is to be the immediate basis for the conduct and coordination of emergency operation of the City under disaster conditions. It is extremely important that the disaster response efforts of local, regional, and even State and Federal agencies be coordinated if the disaster is of such a magnitude that outside assistance is required.

The most appropriate contribution at the General Plan level is not the development of contingency or response plans, but the identification of the means for relating land use policies and decisions to disaster planning concerns. Highest priority should be given to investigating the seismic structural response of emergency facilities (fire stations, hospitals, etc.) which are located in potentially hazardous areas. As a preventive measure, critical and emergency facilities should not be approved in hazardous areas, unless this is unavoidable. In all cases, the most stringent structural and engineering requirements should be applied in the design of these facilities, as they must remain functional during and after an earthquake. Also, disaster response plans should take into account such seismically related problems as inundation of large areas caused by dam failure, and the dislocation or isolation of sections of the community caused by the collapse of freeway overpasses and other bridges or structures. The preparation of contingency plans for the evacuation of and/or the provision of emergency services to these areas is of prime importance.

## POLICIES

1. The City of National City recognizes that the community is exposed to

possible severe effects from earthquakes and other geological hazards, and that it is the policy of National City, in carrying out its duty to protect the health, safety, and welfare of its citizens, to reduce the potential seismic hazards to life and property to the greatest practical extent.

2. Establish low levels of acceptable exposure to risk for land uses and structure types in which failure could be catastrophic, which are required during emergencies, or which involve involuntary and/or high occupancy. A scale of land uses grouped according to relative levels of acceptable risk is presented in Table 4.

3. To ensure that undue risks are not created in hazardous areas, require geotechnical studies to determine the actual extent of various seismic and geological hazards, to determine the most desirable location for the structure, whether there are any special structural requirements that might be advisable, or even whether the construction of the proposed facility is feasible or desirable in that particular location.

4. Require more detailed and extensive geotechnical studies in the following cases:

   - for land uses and structures with low acceptable risk levels (see Table 4).
   - in locations where the land use or structure would be exposed to a high potential seismic hazard.

5. Do not permit critical installations such as emergency facilities, public buildings, communication and transportation facilities, and water retention lines and structures to be located on or near active fault traces. Major utility lines and their appurtenant structures should be permitted on or near fault traces where necessary provided the latest earthquake proof methods in construction, safety devices, building type, design and type of material are utilized.

6. Utilize available geologic data at all stages of planning and the development process. Such data should be as detailed as possible for the preparation and revision of zoning and grading ordinances.

TABLE 4: ACCEPTABLE EXPOSURE TO RISK RELATED TO VARIOUS LAND USES*

The following land uses and structural types are arranged according to the level of acceptable risk appropriate to each group, i.e., the lowest level of acceptable risk should be allowed for Group 1 and the highest level of acceptable risk for Group 6. This grouping reflects the factors discussed earlier in this Chapter.

| Level of Acceptable Exposure To Risk | Land Use Groups |
|---|---|
| Extremely Low | Group 1: ▪ Vulnerable structures the failure of which might be catastrophic, such as nuclear reactors, large dams, and plants manufacturing or storing explosives or toxic materials.<br>Group 2: ▪ Major vital public utility facilities such as electric transmission interties, network ties, and substation; regional water supply distribution facilities such as aqueducts and valley pipelines, treatment plants and pumping stations; and gas transmission mains. |
| Low | Group 3: ▪ Major communication and transportation facilities such as airports, telephone lines and terminals, bridges, tunnels, freeways and overpasses, and evacuation routes.<br>▪ Water retention structures such as small dams and levees.<br>▪ Emergency facilities, such as hospitals, fire and police stations, ambulance services, and post-earthquake aid stations.<br>Group 4: ▪ Involuntary occupancy facilities such as convalescent and nursing homes, schools, and prisons.<br>▪ High occupancy buildings such as theaters, arenas, large office buildings and hotels, and large apartment buildings or complexes. |
| Moderately Low | Group 5: ▪ Public utility facilities such as metropolitan feeder electric transmission routes, water supply turnout lines, and sewage lines.<br>▪ Buildings which are of major importance to the local economy. |
| Ordinary Risk Level | Group 6: ▪ Minor transportation facilities such as arterials and parkways.<br>▪ Low to moderate occupancy buildings such as single-family residences, small apartment buildings, motels, and small commercial/office/professional and light industrial buildings.<br>Group 7: ▪ Very low occupancy buildings such as warehouses, storage areas, and farm structures.<br>▪ Land uses such as open space and recreation, agriculture, sanitary land fill, and wildlife areas. |

*Based in part upon the Joint Committee on Seismic Safety's Scale of Acceptable Risk.

7. Join with other South Bay communities in a seismic safety study of the area, which would provide the detailed geologic, soils, and hydrologic information necessary to prepare an updated Seismic Safety chapter.

8. Create a position of "staff geologist"* for the seismic safety study area whose function would be to:
   - Educate City officials as to importance of geologic and seismic considerations.
   - Give advice on planning requirements.
   - Help collect geologic data.
   - Assist in preparing and help update and revise the General Plan and Seismic Safety chapter.
   - Review applications and determine what studies are needed prior to proposed approval.
   - Review geologic reports and assist decision makers.
   - Review building permits.
   - Review environmental impact reports.
   - Compile geologic data in a manner understandable to the layman and to make such information available to the public by use of interpretative maps, text and other means of communication as is necessary.

9. Adopt the "1973 Uniform Building Code"; The Recommended Lateral Force Requirements and Commentary prepared by the Structural Engineers Association of California should be used as a basic input during the revision of the City's existing building code.

10. Use the Specific Plan (Section 65450.1 et. seq., Government Code; Section 11526 and 11549.5, Business and Professional Code) in hazardous areas, when appropriate, to demonstrate in advance to potential developers the specific seismic hazard risk conditions to be met prior to development.

11. Authorize the Building and Housing Department and the Engineering Department to determine the significant structural hazard problems of the City, including those posed by structurally unsound residences, public buildings

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*It is not necessarily intended that this be full-time or exclusive function of any one staff person, but could be one of several responsibilities assigned to one or more persons on the City's staff.

and other public facilities, and structural appendages such as large signs and marquees; and formulate an abatement program tailored to solve those specific problems, with highest priority for structural hazards abatement being older structures (especially those built of unreinforced masonry), and critical public buildings such as emergency facilities, utilities, involuntary occupancy, and high occupancy structures.

12. Buildings found to be structurally unsafe should be removed or brought to acceptable standards. It is acceptable to change the use of the buildings to one of a less critical nature, if this use is consistent with the overall General Plan.

13. Structures may be designated as non-conforming to existing seismic safety standards and, while immediate removal may not be necessary, the following requirements should be imposed:
    - If the building is damaged more that a specified percent of its value, its use(s) shall be terminated.
    - The building itself shall not be structurally expanded or attachments made thereon unless such expansion or attachments satisfy all existing building codes and their structural integrity is uncompromised by the portions of the building designated as non-conforming.
    - In those cases where change of use or occupancy level is not practical or possible, the use of the building should be terminated after a certain period of time based on an equitable amortization schedule, and the existing uses designated as non-conforming to acceptable risk standards should not be expanded in any way.

14. Where local utility lines cross an active or potentially active fault trace, provisions should be made for rapid repair and/or alternative service following earthquake-inflicted damage, and water and sewage lines should have automatic cut-off valves.

15. When and if the CPO and/or the State of California requests the National Oceanic and Atmospheric Administration to prepare information on the expected tsunami run-up along the California coast for 20-, 50-, and 100-year recurrence intervals, National City should establish and map

a tsunami hazard risk zone along the coastline in the Planning Area as follows:

- No permanently inhabited structures other than those absolutely required should be permitted within the 20-year recurrence run-up zone.
- Only low intensity uses should be permitted within the 50-year recurrence run-up zone.
- Schools, hospitals, other critical facilities, and public buildings should be located above the 100-year recurrence run-up zone.

Because past run-ups along the San Diego coastline have, with a few exceptions, been insignificant, National City may wish to modify the above recommendations to apply only to a run-up wave of some minimum designated height at which the damage to buildings and other structures equals or exceeds the cost of implementing the recommendations.

## CHAPTER IX: NOISE

State law requires the noise element of the general plan to show contours of "present and projected" noise levels for major transportation facilities. The law further requires that the agency responsible for the construction and maintenance of the facility provide a statement of present and projected noise levels for the facility. Overflights from Lindbergh Field are not a problem in National City, nor is the noise generated by the San Diego Transit buses a major problem. There are no ground rapid transit systems at the present time. Thus, the major source of noise to be dealt with in this chapter will be the freeways which are located in National City.

The mandate in state law is to treat noise as a community problem and to seek solutions on a community level. This is appropriate, because even though most research on the effects of noise on people has given results on an individual physiological basis (e.g., loss of hearing, loss of sleep, hypertension), the creation of noise takes place at the community level. There are actions which individuals can take to protect themselves from noise, but very little they can do to control noise sources.

### THE MEANS OF CONTROLLING NOISE

Effective noise control requires the cooperation of all levels of government, private firms and individuals. Each can take different actions towards quieting our cities. There are four general categories of actions which can be undertaken to achieve noise abatement: 1) quiet the source of noise; 2) interpose barriers between the source of noise and the receiver; 3) protect the receiver; and 4) absorb the remainder. Some of these actions are more appropriate to

one group, e.g. government, and some to others. In the hypothetical case of a single-family residence located near a freeway, noise abatement actions might consist of any combination of the following:

1. Quiet the source of noise.
   a. Government (State): Use the quietest surfacing possible; patrol freeways and cite noisy vehicles.
   b. Private Firms: Design quieter tires; design more effective mufflers; maintain trucks in quietest possible condition.
   c. Individuals: Maintain vehicles in quietest possible condition.

2. Interpose barriers between the source of noise and the receiver.
   a. Government (State): Design depressed freeways whenever possible; build sound attenuation barriers.
      Government (Local): Require shielding of new residence near freeways by ordinance; sound test existing residences near freeways and cooperate with the State to get barriers built.
   b. Private firms: Build shields for new houses near freeways.
   c. Individuals: Design and construct devices for attenuating freeway noise, e.g. fences.

3. Protect the receiver.
   a. Government (Local): Require sound insulation in new residential construction by ordinance; adopt standards of exposure to noise for new homes near freeways (site layout, position of house on property); use acoustically impermeable material in homes near freeways.
   b. Private Firms: Construct acoustically insulated homes near freeways.
   c. Individual: Wear ear plugs; install insulation; keep windows closed.

4. Absorb the remainder.
   a. Private firms: Install acoustical tile in ceilings of new homes.
   b. Individuals: Install rugs, heavy drapes and acoustical tile if not already installed.

Obviously, all the methods outlined above are not feasible (or even desirable -- for example, keeping windows closed at all times) in every case. However, various combinations can be used to alleviate the effects of noise on people,

and the best combination of actions for each case should be identified and pursued. Some of the considerations in choosing which actions are appropriate are a) cost; b) physical characteristics of freeway route (right-of-way width available, topography, etc.); c) level of noise reduction desired; d) aesthetics; and e) highway safety.

## NOISE LEVEL EVALUATION

Noise is commonly measured in "decibels," (dB's) which are units of sound level intensity. The decibel scale is logarithmic. This means that an increase of 10 decibels is a tenfold increase of sound intensity, which the ear perceives as a doubling of sound level. The smallest change of sound level which is detectable by the human ear is 3 decibels. The "A" weighting scale, which de-emphasizes low tones and emphasizes high tones, most closely approximates the reaction of the human ear to noise. This scale is the most commonly used in the measurement of transportation noise. It is expressed as "decibels A" (dBA). (See Appendix D, for the decibel levels of some common noises.) Unfortunately, the human response to noise cannot be measured by decibel levels alone. Other factors, such as the time of day, length of exposure, individual sensitivities and length of time between exposures must also be taken into account.

## TRANSPORTATION NOISE CONTOURS

Although the California Department of Transportation (CalTrans) is required to prepare "present and projected" noise levels for freeways, they have not yet done so for the routes which traverse National City. However, the San Diego Comprehensive Planning Organization has had noise contour mapping prepared for major transportation facilities in the county and these maps are incorporated by reference in the National City General Plan.* These maps show present noise levels and projected 1995 noise levels. They show a 65 dBA contour line around freeways and some major arterials (part of Highland Avenue is included, for example.)

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*Transportation Noise Contours, San Diego Comprehensive Planning Organization, November, 1973. These maps are on file in the National City Planning Department.

Once CalTrans prepares larger scale maps (ideally, these would be drawn on the 1" = 200' orthophotos National City has prepared), the land uses abutting freeways and the sound levels they are exposed to can be identified. After this is accomplished, the priorities outlined in Policy #5 (see below) can be assigned to various areas. For example, a residential area or school with a high noise exposure would receive Priority 1, while an industrial area with the same exposure would receive a Priority 3. Work can then begin with CalTrans in order to decrease noise to acceptable levels in accordance with Federal standards and National City priorities.

POLICIES

1. It is recognized that noise levels which are not necessarily loud enough to cause permanent hearing loss nevertheless can have negative effects on people who are exposed to them and should be controlled.

2. All methods of noise reduction available to public and private agencies and to individuals shall be pursued where appropriate.

3. Different noise levels are acceptable in different land use areas. (For example, industrial areas can tolerate more noise than can residential areas.)

4. Noise levels shall be a consideration in approval of all projects and activities, public and private, which require a permit or other approval from the City of National City.

5. It is recognized that it is not possible to abate all sources of noise at once, nor is it feasible to expect abatement of all existing noise sources to desirable levels due to economic and engineering difficulties; therefore, priorities for noise abatement shall be as shown in Table 5 below.

TABLE 5

NOISE ABATEMENT PRIORITIES

| Priority | Use Type | Ambient Daytime Outdoor Decibel Level to be Attained - (dBA)* |
|---|---|---|
| 1 | Existing Residential | 65 |
| | Schools | 65 |
| | Parks and Open Space | 65 |
| | Hospitals, Rest Homes, etc. (Residential Medical) | 65 |
| 2 | Retail Commercial | 65 |
| | Offices and Non-retail Commercial | 65 |
| | Recreation and Entertainment | 65 |
| | Community Services (Other than Residential Medical) | 65 |
| 3 | Industrial | 75 |
| | Warehousing | 75 |

*Ambient daytime noise level: the residual noise level, or that which is exceeded 90% of the time. This may be expressed as $L_{90}$.

SPECIFIC POLICIES

1. Consider adopting a noise control ordinance based either on the Model Noise Ordinance prepared by the League of California Cities (Revised January, 1973) or on the New York State Proposed Regulations for the Prevention and Control of Environmental Noise Pollution (N.Y. State Department of Environmental Conservation, Bureau of Noise Control, Albany, N.Y., 12201).

2. Use the noise exposure standards promulgated by the U.S. Department of Housing and Urban Development for approval of new residential construction (see Appendix E).

3. Maintain and operate all City-owned and -operated vehicles and facilities at noise levels which meet or exceed the levels stated in Priorities 1, 2, and 3 above.

4. Make a citywide effort to cite both vehicles operating on public rights-of-way and off-road vehicles which do not comply with the levels stated in Priorities 1, 2, and 3.

5. Seek the cooperation of the San Diego County Sheriff's Department in limiting noise from helicopter overflights by all means possible.

6. Vigorously pursue the cooperation of the California Department of Transportation in bringing noise levels near State Highways and Interstate routes to at least the standards promulgated by the Federal Highway Administration in PPM 90-2 (see Appendix F).

7. Undertake a program of sound testing of noise source sites and cite offending uses. The testing should be done with the priorities for abatement as a guide to which sources will be tested first.

8. Make efforts to bar trucks over five tons (which are the most significant source of highway noise) from I-805 in National City. The precedent for this has been set by the MacArthur Freeway (I-580) in the residential areas of Oakland, California.

9. Incorporate the standards in the California Administrative Code, Article 4, Section 1092, Noise Insulation Standards, into the National City building code as the requirements for new multi-family residential construction in National City.

# APPENDIX A: DISPLAY MATERIALS*

| Title | Scale |
|---|---|
| 1. City-Owned Land | 1" = 500' |
| 2. Housing Conditions | " |
| 3. Existing Densities (Residential) | " |
| 4. Existing Zoning | " |
| 5. Current Land Use | " |
| 6. Owner Occupancy by Block | " |
| 7. Apartments Built and Buildings Razed 1960-73 | " |
| 8. Sketch Plans 1, 2 and 3 | " |
| 9. Average Single-Family Home Size by Block | 1" = 1,000' |
| 10. Average Single-Family Home Value by Block | " |
| 11. Average Rental Unit Size by Block | " |
| 12. Average Housing Rentals by Block | " |
| 13. Blocks with only Single-Family Homes | " |
| 14. Overcrowding by Block | " |
| 15. Steep Slopes 25% and Over (Sweetwater Valley) | 1" = 2,000' |
| 16. Steep Slopes | 1" = 500' |
| 17. Undeveloped Land | " |

*Prepared by Duncan & Jones, Planning Consultants, during the General Plan revision program. These materials are on file in the National City Planning Department.

## APPENDIX B: SUGGESTED NEIGHBORHOOD PARK FACILITIES

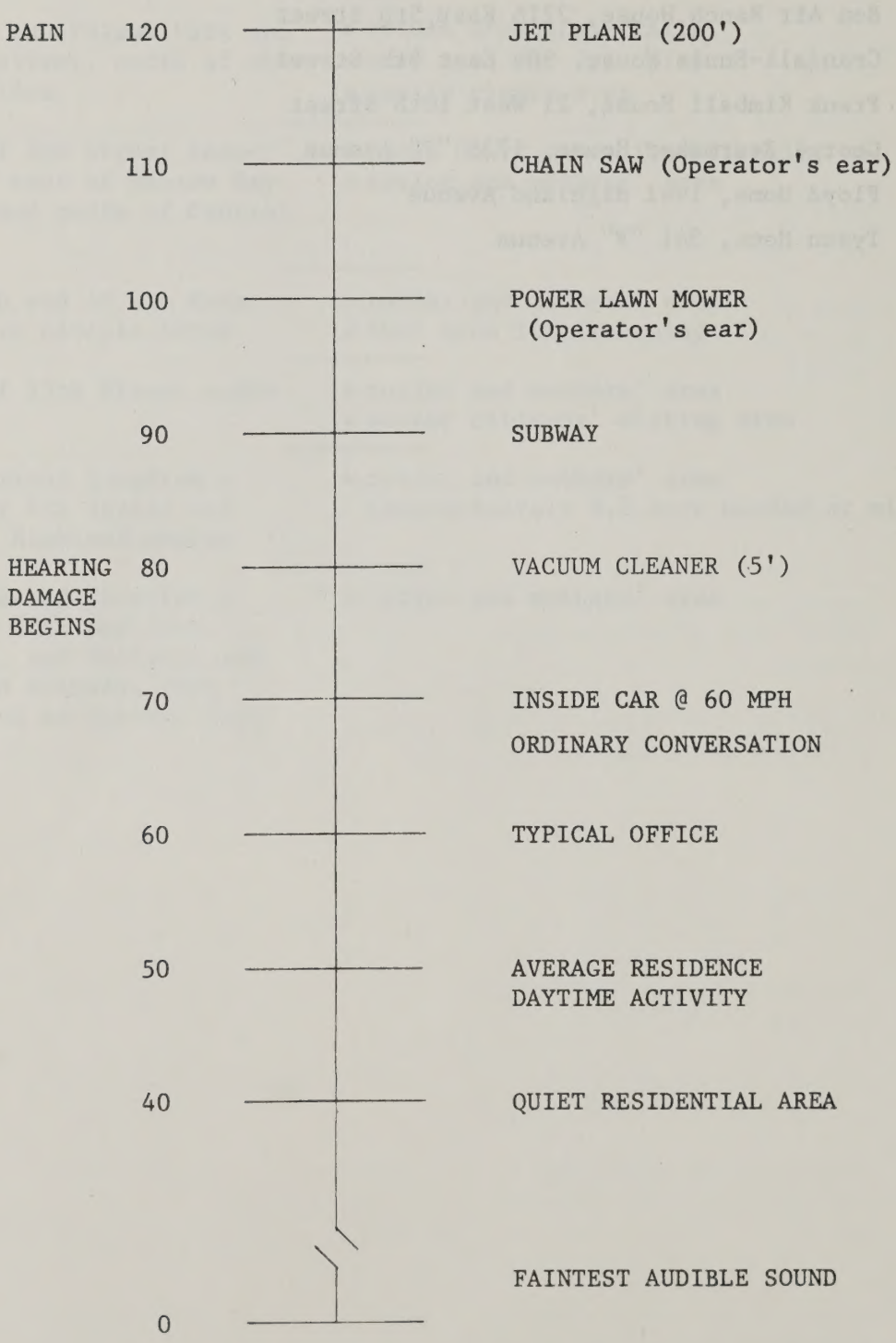
| Park | Suggested Development |
|---|---|
| 1. Clairmont Avenue between First Street and Melrose Street | ▪ totlot and mothers' area |
| 2. North of Fourth Street and East of Palm Avenue | ▪ Develop in conjunction with Granger Hall<br>▪ Horticulture Garden |
| 3. East of R Avenue and north of 12th Street | ▪ totlot and mothers' area<br>▪ turf area for free play |
| 4. West of Thelma Way just north of Ira Harbison School | ▪ totlot and mothers' area on that area on top of slope with access from Thelma Way and East 6th Street<br>▪ turf area for free play or nature/hobby area (additional landscaping is needed) at southeast corner across from school; slopes should be landscaped with switch-back walkway (with sitting area) connecting upper and lower parts |
| 5. Immediately adjacent to south side of Palmer Way School | ▪ totlot and mothers' area<br>▪ family picnic area |
| 6. North of 16th Street between L Avenue and N Avenue | ▪ approximately 1.5 acre for paved area for court games and multi-purpose use (4 basketball courts, 4 tennis courts, and general use)<br>▪ approximately 0.3 acre for senior citizens' area<br>▪ approximately 0.4 acre for buffer and transitional use |
| 7. West of Q Avenue and north of 16th Street | ▪ totlot and mothers' area |
| 8. Between north end of Q Avenue and Interstate 805 | ▪ turf area for free play |
| 9. Between A and B Avenues and 29th and 30th Streets | ▪ turf area for free play<br>▪ family picnic area<br>▪ trail to tie into adjacent proposed open space area |
| 10. South of Olivewood School between F Avenue and Highland Avenue (including one-half of right-of-way of F Avenue, 28th Street, and G Avenue) | ▪ paved court games (tennis court, handball court, etc.) - could use street right-of-way<br>▪ totlot and mothers' area (off Highland)<br>▪ turf area for free play |

| | | |
|---|---|---|
| 11. | East side of N Avenue just north of 26th Street (portion of an area shown as "open space" on the General Plan Map) | ▪ totlot and mother's area<br>▪ Captain's Tree historical marker (preservation area). |
| 12. | Between Las Palmas Park and Newell Street, north of the county line | ▪ nature area with trails<br>▪ turf area for free play<br>▪ family picnic area |
| 13. | South of 8th Street immediately east of Hebrew Day School and north of Central School | ▪ paved court games (basketball)<br>▪ totlot and mothers' area |
| 14. | At south end of Van Ness Avenue in Lincoln Acres | ▪ totlot and mothers' area<br>▪ turf area for free play |
| 15. | North of 13th Street under I-5 | ▪ totlot and mothers' area<br>▪ senior citizens' sitting area |
| 16. | Undetermined location - north of 4th Street and west of Highland Avenue | ▪ totlot and mothers' area (approximately 0.2 acre needed at minimum) |
| 17. | Undetermined location - between 18th and 24th Streets, and National and Highland Avenues. (Not indicated on General Plan Map.) | ▪ totlot and mothers' area |

# APPENDIX C: HISTORIC BUILDINGS PRIORITIES LIST

1. Pinney House, 538 "C" Avenue
2. Bon Air Ranch House, 2216 East 5th Street
3. Crandall-Ennis House, 904 East 8th Street
4. Frank Kimball House, 21 West 10th Street
5. George Beermaker House, 1735 "J" Avenue
6. Floyd Home, 1941 Highland Avenue
7. Tyson Home, 341 "F" Avenue

## APPENDIX D: APPROXIMATE RANGE OF DECIBEL VALUES




Source: New York State Department of Environmental Conservation.

# APPENDIX E: HUD NOISE EXPOSURE STANDARDS

The HUD standards for noise exposure in new structures are detailed in Notice #1309.2, dated 8/4/71, as follows:

General External Exposure (dBA)

Unacceptable:

Exceeds 80 dBA 60 minutes per 24 hours.

Exceeds 75 dBA 8 hours per 24 hours.

Discretionary - normally unacceptable

Exceeds 65 dBA 8 hours per 24 hours

Loud repetitive sounds on site

Discretionary - normally acceptable

Does not exceed 45 dBA more than 8 hours per 24 hours.

APPENDIX F: FEDERAL HIGHWAY ADMINISTRATION DESIGN NOISE LEVEL/LAND USE RELATIONSHIPS

| Land Use Category | Design Noise Level - $L_{10}$ | Description of Land Use Category |
|---|---|---|
| A | 60 dBA (Exterior) | Tracts of lands in which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, or open spaces which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet. |
| B | 70 dBA (Exterior) | Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, picnic areas, recreation areas, playgrounds, active sports areas, and parks. |
| C | 75 dBA (Exterior) | Developed lands, properties or activities not included in categories A and B above. |
| D | -- | No requirements for undeveloped lands are included here. |
| E | 55 dBA (Interior) | Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums. |

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